not have been dumped in this location, and certainly not without some form of containment. These sand piles are not part of the proposed development and are not located on the applicant's property; therefore the management of these stock piles are not within the control of the applicant.

Full size prints with these revisions will be provided to the Maine Department of Environmental Protection in conjunction with the revisions resulting from comments from the Geological Project Review Memorandum. Please feel free to give me a call at 207-883-1000 if you have any questions. Thank you.

Sincerely,

Northeast Civil Solutions, Inc.

Denise Cameron, P.E.

Danise Comeron

Project Engineer

CC: Steve Etzel, HRC-Village at Little Falls, LLC
Marybeth Richardson, Maine Department of Environmental Protection
James Pellerin, Maine Department of Inland Fisheries and Wildlife

PO Box 1237 15 Shaker Rd. Gray, ME 04039

Traffic and Civil Engineering Services

207-657-6910 FAX: 207-657-6912 E-Mail:mailbox@gorrlllpalmer.com

August 15, 2007

Mr. Brooks More, AICP Director of Planning Town of Windham 8 School Street Windham, ME 04062



Subject:

Village at Little Falls

Traffic Engineering Peer Review

Dear Brooks,

As requested by your office, Gorrill-Palmer Consulting Engineers Inc. has reviewed the responses provided by Bill Bray, dated August 11, 2007. Our office provided review comments to the Town and applicant on July 5, 2007 and August 3, 2007.

Mr. Bray has provided the crash data for the Depot Road at River Road intersection, which indicates only one crash in the last three years. Based on this information and the previous assessment that the intersection only marginally meets the criteria for consideration of a left turn lane, we would concur that a left turn treatment is not warranted.

Please contact this office with any questions.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

Peter A. Hedrich, P.E., PTOE Vice President, Transportation

Copy: Lee Allen, Northeast Civil Solutions, Inc.

Steve Etzel, HRC

U:\887.22\VLF Comments2 8-15-07.doc

APPENDIX D

OPINION OF PROBABLE FOUNDATION REHABILITATION COSTS

KEDDY MILL, SOUTH WINDHAM, MAINE CONCEPTUAL OPINION OF PROBABLE FOUNDATION REHABILITATION COSTS SUMMARY February 11, 2009

	SCOPE ITEM	DESCRIPTION	TOTAL COST	COMMENT
	4.3.1	Repair South Wall Grade Beam Over Water	\$50,000	
	4.3.2	Install New 40-ton Piles Along South Wall, Lines 30, 33, 36, 39	\$30,000	and the contract of the contra
ဟ	 a a.a	Desir On the Ferritain Wall County Desire	\$24.000	
	4.4.1 4.4.2	Repair South Foundation Wall Over Grade Beam Replace North Wall Infill with New CMU	\$21,000 \$26,000	
8	4.4.3	Brace Foundation Wall Tops, Lines 21-39, 6 Locations	\$18,000	
ž	4.4.4	New Retaining Wall at West End of the Building	\$250,000	
2	4.4.5	New Endwall Brace or Foundation Shear Wall, Line 21	\$15,000	
) (CC				
丞	4.5.1	New Top Slab From Column Lines 21-40	\$52,000	
E	4.5.2	Repair Elevated Concrete Slabs, Lines 40 to 47	\$208,000	
CONSTRUCTION	4.5.3	Demo and Rebuild West Garage Ramp, Support on Piles	\$30,000	
Ų.		subtotal 1:	\$700.000	Subcontractor Costs
		10% Contingency	\$70,000	
	1	subtotal 2:	\$770,000	
		Add 15% General Contractor Overhead and Profit	\$115,500	G.C. Overhead and Profit
	·	TOTAL CONSTRUCTION COSTS	\$885,500	**************************************
			\$885,000	CONTROL OF THE ACT OF
		UNIT COSTS: ASSUMES 14 UNITS, 14 PKG SPACES Total Net Area of Living Space	14 14,892	square feet of living space
		COST PER SQUARE FOOT OF LIVING SPACE	\$59	
		COST PER LIVING UNIT	\$63,214	

Notes

- 1. This information is part of Keddy Mill Foundation Assessment and Seismic Review, by Resurgence Engineering & Preservation, February 2009
- 2. Based upon 2009 Dollars. See preceeding sheet for description of parameters involved in assembling Cost Opinion.
- 3. Refer to additional backup in Appendix at the back of this report.

VIL_RESP01647

KEDDY MILL, SOUTH WINDHAM, MAINE CONCEPTUAL OPINION OF PROBABLE FOUNDATION REHABILITATION COSTS -- February 11, 2009

EPORT SECTION 4.3 PIERS, PILECAPS, AND VISIBLE GRA	DE BEAMS			UNIT COST			SUBTOTALS		TOTAL COST	COMMENT
EM description	QUANTITY	UNIT	LABOR	MATERIAL	EQUIP	LABOR	MATERIAL	EQUIP		
.3.1 Repair South Wall Grade Beam over Water										
Grade Beam Repairs, including swing staging over side of bldg	50	0 square feet	40 00	30.00	30.00	\$20,000	\$15,000	\$15,000	\$50,000	Equip provides allowance for access difficulty to water; i.e. swing staging
Assumes water has been lowered to allow underside access										See Photos #2.1 through #2.8
Does not consider any power plant stoppage costs										
Considers 167 feet x 3 feet =501 square feet, round to 500 s.f.										
3.2 Install new 40-ton piles along South Wall, 4 Locn's								_		
Install Two New Piles each location, 4 locations, 60lf each loc'n	24	0 lineal feet	30 00	20.00	10.00	\$7,200	\$4,800	\$2,400	\$14,400	Total for all Four Locations
Concrete Demo		4 locations	1,500 00	200.00	300.00	\$6,000	\$800	\$1,200	\$8,000	Concrete Demo Subtotal, All Four Locations
Concrete Repairs, Tying Piles Together, Patching		4 locations	1,200.00	700 00	0.00	\$4,800	\$2,800	\$0	\$7,600	Concrete Repairs Subtotal, All Four Locations
(OCCURS AT LINES 30, 33, 36, 39)										
		0	0.00	0.00	0.00	\$0	\$0	\$0	\$0	,
REPORT SECTION 4.3 SUBTOTAL						\$38,000	\$23,400	\$18,600	\$80,000	

REPOR	T SECTION 4.4 FOUNDATION WALLS			UNIT COST			SUBTOTALS		TOTAL COST	COMMENT
ITEM d	escription	QUANTITY UNIT	LABOR	MATERIAL	EQUIP	LABOR	MATERIAL	EQUIP	L	
4.4.1 R	epair South Foundation Wall Over Grade Beam									
	/all Repairs, Including swing staging over side of building	1,500 square feet	10 00	2.00	2.00	\$15,000	\$3,000	\$3,000	\$21,000	Equip provides allowance for access difficulty to water, i.e. swing staging
A	ssumes water has been lowered to allow underside access									
	oes not consider any power plant stoppage costs									
D D	oes not include interior cosmetic painting									
							ļ			
	eplace North Wall Infill with New CMU									
	MU Demo and Replacement	1,000 square feet	14.00	10,00	2 00	\$14,000		\$2,000	\$26,000	See Photos #1.2 and #1.5. Six Bay spaces between concrete columns
	2 feet x 14 feet x \$32 per square foot, round 1008 s.f. to 1000 s.f.	0 locations	0.00	0,00	0.00	\$0	T -	\$0	\$0	
	lso considers local concrete column patching repairs this area	0 locations	0.00	0 00	0.00	\$0	\$0	\$0	\$0	
	onsiders a glazed CMU finish-type block, no insulation or backer wa	ill								
l	- 1.0 M. H 15 A. O. O. D 41									
	race Foundation Wall Tops, Lines 21-39, 6 locations		4 405 55				45.45			
	race wall at Six Locations (at primary interior columns)	6 locations	1,400.00	1,400.00	200.00	\$8,400	\$8,400	\$1,200	\$18,000	See Photo #3 1 for Center Pier Structure
	onsiders steel braces diagonally from near tops of walls to	0 locations	0.00	0.00	0.00	\$0	\$0	\$0	\$0	
	ramework at Center of the Building									,
aaa s	and Databalan Matt of Mont End of the Building									
	ew Retaining Wall at West End of the Building Diffeet high x 76 feet long	1 lump sum	120,000.00	100,000,00	30,000.00	\$120,000	\$100,000	\$30,000	\$350 AAA	See Photo #3.2
4	onsiders some tlebacks into existing driveway soils and	0 locations	0.00	0.00	0.00	\$120,500		\$30,000 \$0	\$250,000	See P11010 #3,2
	ome bracing off of adjacent boiler structure to remain	Offications	0.00	0.00	0.00		Φ0	Φ0	90	
1 3	The bracing on or adjacent soller structure to remain									, , , , , , , , , , , , , , , , , , , ,
445 N	ew Endwall Brace or Foundation Shear Wall, Line 21									
31 1	4 feet high x 38 feet wide; two sections, either side of center column	1 lump sum	9,000.00	6,000.00	0.00	\$9,000	\$6,000	\$0	\$15,000	Designed resist lateral loads against long direction of building.
	vill be tied into large octagonal center pler at line 21	0 locations	0 00	0.00	0.00	\$0		\$0	\$0	and the state of t
	ehicular opening at south side half for cars to exit	Ö	0.00	0.00	0.00	\$0		\$0	\$0	
	EPORT SECTION 4.4 SUBTOTAL					\$166,400	\$127,400	\$36,200	\$330,000	

REPORT SECTION 4.5 LOWER LEVEL FLOOR				UNIT COST			SUBTOTALS		TOTAL COST	COMMENT	
ITEM description	QUANTITY	UNIT	LABOR	MATERIAL	EQUIP	LABOR	MATERIAL	EQUIP			
4,5.1 New Top Slab From Column Lines 21-40											
Slab Repairs Considers 6" slab tied into piers and walls w/ beams	130	vards	175.00	175,00	50.00	\$22,750	\$22,750	\$6,500	\$52,000	Considers Allowances for Dowelling, Thickening	as Required and
5900 square feet, 7" average slab depth = 130 yards concrete		2-11-1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			<u> </u>	7447.	*-1		For Vapor Barrier and Drainage System Below N	
Does not include traffic bearing membrane											
4.5.2 Repair Elevated Concrete Slabs, Lines 40 to 47											
40 percent of 5,200 square feet elevated slab	2,080	square feet	55.00	25.00	20.00	\$114,400	\$52,000	\$41,600	\$208,000	See Photos #3 5 through #3.8	
\$100 per square foot	0	focations	0.00	0.00	0.00	\$0	\$0	\$0	\$0		
Does not include traffic-bearing membrane											
4.5.3 Demo and Rebuild west garage ramp; support on piles	.,										
Demo of Existing Ramp	1	lump sum	1,500.00	300,00	200,00	\$1,500	\$300	\$200	\$2,000	See Photo #1.6	
8 piles, 25 lineal feet each, x \$60/lineal foot	8	each	700.00	800.00	0,00	\$5,600	\$6,400	\$0	\$12,000		
New Cast-in-place Concrete Ramp	1	lump sum	10,000.00	6,000.00	0,00	\$10,000	\$6,000	\$0	\$16,000		
	0	-	0.00	0.00	0.00	\$0	\$0	\$0	\$0		PECDU16
REPORT SECTION 4.5 SUBTOTAL						\$154,250	\$87,450	\$48,300	\$290,000	VIL	TEOF O TO-

APPENDIX E RESUME

RESURGENCE

ENGINEERING AND PRESERVATION, INC. 132 BRENTWOOD STREET PORTLAND, MAINE 04103 v/f (207) 773-4880 EMAIL: RESURGENCE@VERIZON.NET

ALFRED H. HODSON III, P.E.

MAINE P.E. #9246

EXPERIENCE:

OWNER/ENGINEER September 2002 - present. Resurgence Engineering and Preservation, Inc., Portland, ME

- Evaluation and inspection of historic institutional, commercial, and residential building structures.
- Structural design and analysis to stabilize and upgrade existing historic structures.
- Structural design of residential additions and light-commercial construction.

PROJECT E.I.T. / ENGINEER - September 1996 - April 2002. Criterium-Mooney Engineers, Portland, ME

- Structural, Fire, and Life-safety upgrades in historic masonry, iron, steel, and timber structures.
- Construction litigation and deposition witness.

MECE (STRUCTURES) and HISTORIC PRESERVATION CERTIFICATE - UNIVERSITY OF VIRGINIA

September 1994-August 1996. Charlottesville, VA (Completed January, 1998)

- Graduate Research Assistant, History Department, Virginia Transportation Research Council. MECE Report: "Renovation Options for the Goshen Bridge". Restoration feasibility study proposed and estimated costs of renovation methods for two-span metal truss bridge listed on the National Register of Historic Places.
- Preservation courses included Preservation Theory, Preservation Planning, Engineering Aspects of Preservation (Building Evaluation Techniques), Community History Studies (two semesters).

STRUCTURAL E.I.T. January 1990 - July 1994. S E A Consultants, Cambridge, MA

Design and analysis of steel, reinforced and prestressed concrete, reinforced masonry, and wood structures.

STRUCTURAL E.I.T. June 1988-January 1990. Engineers Design Group, Cambridge, MA

Design using steel, concrete, masonry, and timber construction; shop drawing review, site inspections.

PARTIAL PROJECT LISTING:

- Roof Repairs, Fort Knox State Historic Site, Prospect, ME (January 1997-December 2000): Provided construction documents and specifications for ongoing roof repairs, masonry restoration, life safety, accessibility and site improvements at Fort Knox State Historic Site.
- ♦ <u>Façade Assessment, Fidelity Investments, Headquarters, Boston, MA</u> (1991): Performed field investigation and assisted with evaluation report describing deficiencies in the facades of four historic multistory buildings in the Boston Financial District. Assisted with repair recommendations for parapets following severe storm damage in October 1991.
- Masonry Rehabilitation and Life Safety Improvements, Fort William Henry, South Bristol, ME (April 1998-August 1998): Performed preservation design and construction monitoring for masonry rehabilitation and life safety improvements at Fort William Henry State Historic Site.
- <u>City Hall Clock Tower and Parapet Restoration, Portland, ME</u> (2003-2007): Engineer of record for structural restoration of historic clock tower and parapets on 1912 Carrere & Hastings / John Calvin Stevens City Hall. Work included seismic strengthening of parapets and extensive structural upgrades to corroding steel and spalling granite in tower. Designed replacement belfry slab to replace significantly deteriorated slab.

PRIOR EDUCATION:

Duke University. BSCE, May 1988. Civil Engineering Emphasis in Structures

BSCES Lecture Series, "Structural Rehabilitation/Restoration" (1993)

"Engineering for Historic Structures", APTI Conference, 2003.

"Wind Loads on Buildings and Structures", Seminar, 2004.

"Transitioning from 1999 BOCA to 2003 IBC", Seminar, 2005.

PROFESSIONAL AFFILIATIONS:

Greater Portland Landmarks, Structural Engineers Association of Maine, (Secretary, 20 PLe09 RESP01650



The following locations are in coordination with these sample numbers.

Sample Number	Location
C1	Basement East Wall at Line 5.5
C3	Basement North Wall at Line 21.5
C6 B	Basement South Wall at Line 40 (2 Cores)
C7	Basement Floor Between Lines 43 to 46 (Topping & Slab)
C11	Second Floor South Wall Column at Line 13
C12	Second Floor Beam at Line 17.5 (Topping & Beam)
C14	Second Floor South Wall Column at Line 30



REPORT OF CHLORIDE-ION CONTENT AASHTO-T260 PROCEDURE C

PROJECT:

REPORTED TO:

LITTLE FALLS SOUTH WINDHAM, MAINE SUMMIT GEOENGINEERING SERVICES

434 CONY ROAD

AUGUSTA, ME 04330-4698

ATTN:

DARRELL GILMAN

APS JOB NO:

10-05599

DATE:

SEPTEMBER 30, 2008

INTRODUCTION

This report presents the results of laboratory work performed by our firm on seven approximately one-half pound sized compression tested concrete samples submitted to us by Mr. Darrell Gilman of Summit Geoengineering Services on September 22, 2008. The scope of our work was limited to documenting the chloride-ion content of each sample.

TEST RESULTS

Sample Number C1 (overall)	Parts Per Million <80	Cl lbs/yd ³ ** <0.3	4. -
C3 (overall)	<80	< 0.3	
C6 B (overall)	<80	<0.3	
C7 Beam (overall)	<80	<0.3	
C11 (overall)	115	0.5	
C12 (overall)	115	0.5	
C14 (overall)	210	0.8	

^{**}Calculations based on a 3740 and 3980 lb, unit weight

Our experience has been that chloride-ion levels in excess of 300 to 400 ppm will cause problems with corrosion of embedded steel reinforcement and significantly increase the number of freeze-thaw

cycles. Additionally, deicer salts allow the concrete to become critically saturated. This critical saturation causes each freeze-thaw cycle to be more severe.

TEST PROCEDURES

Laboratory testing was performed on September 22, 2008 and subsequent dates, our procedures were as follows:

We obtained a 3-gram pulverized portion of each sample by crushing a saw cut piece or by use of an impact drill (which passed through a #20 sieve). We then mixed the powder with 20 ml of digestion solution for a total of three minutes and then added 80 ml of stabilizing solution. We then immersed a calibrated electrode coupled to an Orion Model 720 pH/ISE meter in the solution and recorded the chloride-ion concentration. This method is consistent with APS Standard Operating Procedure 00 LAB 017, "Sampling and Testing for Chloride-Ion in Concrete and Concrete Raw Materials, AASHTO:T260 - Procedure C."

By testing six pulverized concrete QA samples of known chloride content, we were able to determine the standard deviation for this chloride test. Each QA sample was tested five times and the following standard deviation ranges were calculated. Samples with chloride levels from 80-200 ppm have a STD = 26 ppm, 201-450 ppm STD = 30 ppm, 451-950 ppm STD= 40 ppm, 951-2000 ppm STD=70 ppm, 2001-4000 ppm STD= 215 ppm and 4001-6000 ppm STD= 300 ppm. Results that are <80 ppm or >6000 ppm are reported as such due to the high magnitude of the standard deviation in both cases.

<u>REMARKS</u>

The test samples will be retained for a period of at least thirty days from the date of this report. Unless further instructions are received by that time, the samples may be discarded. The test results relate only to the sample tested. No warranty, express or implied, is made.

Report Prepared by:

American Petrographic Services, Inc.

Megan Koch

Petrographer/Geologist

Reviewed by:

American Petrographic Services, Inc.

Scott Wolter, PG

President

MN License #30024

Project Name:	Little Fa	lls Mill Concrete	Evaluation		Project No: 14134	1	
			k Preservation, In	C.	Design Strength:	1	
Client Contact:	Alfred H	. Hodson III, P.E	in the state of th		Typical Breaks:	1	
Remarks:			Y	₹.		Propo	sed tests
Set Number	No. of CyL	Concrete Type	Date Received		Location	Chloride	Strength
Cl	Core	A	10-Ѕер		Basement East Wall @ Line 5.5	X	\mathbf{x}
c 2	Core -	В	I0-Sep		Basement Floor @ Line 16	X	X
.C3	Core	C	10-Ѕер		Basement North Wall @ Line 21.5	x	X .
C4	Core	D	10-Sep		Basement Floor @ Line 28:5 (Picces)	x	Too small
.C5	Core	G	10-Ѕер		Basement Center Column @ Line 30	.er	x
. C6	2Core	C	10-Sep	. 1	Basement South Wall @ Line 40 (2 Cures).		X 6B
C7	2Core	E- Top / C-Beam	10-Sep	Bas	ement Floor Between Lines 43 to 46 (Topping & Slab)		XX
C8	2core	c	10-Scp	Outs	ide North Wall Column on Line 40 (2 Preces):		X
С9	Core	C	10-Ѕср		2nd Floor Wall @ Line 1		x
C10	Core	c	10-Sep	2nd Fl	oor Beam @ line 4 (composite topping & Beam)		X
C11	Соге	C	10-Ѕер		2nd Floor South Wall Column @ Line 13	_	X.
, C12	2core	E-Top/C-Beam	10-Sep	. 2nd	Floor Beam @ Line 17.5 (Topping & Beam).	x	X
C13	2core	B Top / C Girder	10-Ѕер	2nd F	loor Top of Girder Line 18 (Topping & Girder)		X
C14	Core	e .	10-Ѕер		2nd Floor South Wall Column @ Line 30		too small
C15	3Core	B- Top / C-Beam	10-Sep	2nd]	Floor Beam @ Line 40 +4' (Topping & Beam)		X
C16	Core	C	10-Ѕср		2nd Floor Column Line C-40 West Face		x
C17	Core	С	10-Sep		2nd Floor Column Line 15		X
5.0				12.			
1	1	1	I.	1			



SUMMIT GEOENGINEERING SERVICES

434 Cony Road, Augusta, Maine 04330 Tel: (207) 621.8334 Fax: (207) 626.9094

TABLE OF CONTENTS

PROJECT NO:

14134

PROJECT NAME:

Little Falls Mill Concrete Evaluation

CLIENT:

Resurgence Engineering & Preservation

C1 [Basement East Wall @ Line 5.5
	Basement Floor @ Line 16
C2 C3	Basement North Wall @ Line 21.5
C4	Basement Floor @ Line 28.5 (Pieces)
C5	Basement Center Column @ Line 30
C6	Basement South Wall @ Line 40 (2 Cores)
27	Basement Floor Between Lines 43 to 46 (Topping & Slab)
C8	Outside North Wall Column on Line 40 (2 Pieces)
C9	2nd Floor Wall @ Line 1
C10	2nd Floor Beam @ line 4 (composite topping & Beam)
211	2nd Floor South Wall Column @ Line 13
012	Second floor Beam at Line 17.5 (Topping and Beam)
C13	2nd Floor Top of Girder Line 18 (Topping & Girder)
C14	2nd Floor South Wall Column @ Line 30
C15	2nd Floor Bearn @ Line 40 +4' (Topping & Beam)
C16	2nd Floor Column Line C-40 West Face
217	2nd Floor Column Line 15

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C1

Source:

Basement, East Wall at 5.5

Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C1

Source:

Basement, East Wall at 5.5

Sample Depth:

Face of Wall to 5.4"

Description:

Basement, East Wall at 5.5

Area, in²:

5.726

Volume, ft³

0.01734

Density. lbs./ft³

148.8

Sample Condition:

WET

Temperature at Loading, ⁰F:

70

Rate of Loading, psi/sec.

50

Laboratory Test Results

Core	Test	Unit Weight	Load	Uncorr.	Correction	Break Type	Corrected
				Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C1	09/16/08	148.8	21.7	3788	1.00	5	3788



3 Cone and

5



Cone

Cone and Split

Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C2

Source:

Basement Floor at Line 16

Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C2

Source:

Basement Floor at Line 16

Sample Depth:

1.36" in From Face to 5.35"

Description:

Basement Floor at Line 16

Area, in²:

5.726

Volume, ft³

0.01312

Density, lbs./ft³

152.4

Sample Condition:

WET

Temperature at Loading, ⁹F:

70

Rate of Loading, psi/sec.

40 to 50

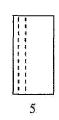
Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft³)	(Kips)	(Psi)	Factor		(Psi)
C2	09/16/08	152.4	24.1	4202	0.96	3	4043



3

Shear





Cone

Cone and Split

Cone and Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C3

Source:

Basement, North Wall at Line 21. Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C3

Source:

Basement, North Wall at Line 21.5

Sample Depth:

From Face to 5.4"

Description:

Basement, North Wall at Line 21.5

Area, in²:

5.726

Volume, ft³

0.01705

Density, lbs./ft³

150.1

Sample Condition:

WET

Temperature at Loading, ⁰F:

70

Rate of Loading, psi/sec.

45 to 50

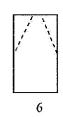
Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C3	09/16/08	150.1	29.4	5138	1,00	6	5138



3

5



Cone

Cone and Split

Cone and Shear

Shear Columnar Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C5

Source:

Basement, Center Column at 30 Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C5

Source:

Basement, Center Column at 30

Sample Depth:

From 4.56" From Face to 9.97

Description:

Basement, Center Column at 30

Area, in²:

5.726

Volume, ft³

0.01714

Density, lbs./ft3

140.4

Sample Condition:

WET

Temperature at Loading, ⁰F:

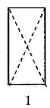
70

Rate of Loading, psi/sec.

45 to 50

Laboratory Test Results

I	Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
			Weight		Strength			Strength
I	Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
	C5	09/16/08	140.4	20.6	3596	1.00	3	3596



3

5

6

Cone

Cone and Split

Cone and

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C6B

Source:

Basement, South Wall at Line 40 Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C₆B

Source:

Basement, South Wall at Line 40

Sample Depth:

From Face to 4.36"

Description:

Basement, South Wall at Line 40

Area, in²:

5,726

Volume, ft3

0.01483

Density, lbs./ft³

137.8

Sample Condition:

WET

Temperature at Loading, ⁰F:

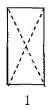
70

Rate of Loading, psi/sec.

45 to 50

Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
1		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C6B	09/16/08	137.8	23.6	4116	0.98	4	4026



3

5

6

Cone

Cone and Split

Cone and Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C7 Topping

Source:

Basement, Floor Between Lines 4 Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C7 Topping

Source:

Basement, Floor Between Lines 43 to 46

Sample Depth:

From Face to 3.4"

Description:

Basement Floor Topping

Area, in²:

5.726

Volume, ft3

0.01116

Density. lbs./ft3

133.3

Sample Condition:

WET

Temperature at Loading, ⁰F:

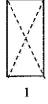
70

Rate of Loading, psi/sec.

45 to 50

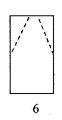
Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C7 Topping	09/16/08	133,3	25.5	4	0.94	4	4178



3

5



Cone

Cone and Split

Cone and Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C7 Beam

Source:

Basement, Floor Between Lines 4 Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C7 Beam

Source:

Basement, Floor Between Lines 43 to 46

Sample Depth:

From top of beam to 3.4"

Description:

Basement Floor Beam

Area, in²:

5.726

Volume, ft³

0.01126

Density, lbs./ft3

144.6

Sample Condition:

WET

Temperature at Loading, ⁰F:

70

Rate of Loading, psi/sec.

45 to 50

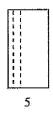
Laboratory Test Results

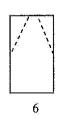
Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight	,	Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C7 Beam	09/16/08	144.6	29.2	5	0.94	6	4785











Cone

Cone and Split

Cone and Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C8

Source:

Outside North Wall, Column on I Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C8

Source:

Outside North Wall, Column on Line 40

Sample Depth:

From Face to 4.93"

Description:

Outside North Wall, Column on Line 40

Area, in²:

5.726

Volume, ft³

0.01622

Density, lbs./ft3

143.2

Sample Condition:

WET

Temperature at Loading, ⁰F:

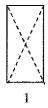
70

Rate of Loading, psi/sec.

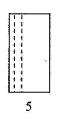
45 to 50

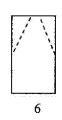
Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight	۷	Strength			Strength
Number	Date	(Lbs./ft³)	(Kips)	(Psi)	Factor		(Psi)
C8	09/16/08	143.2	24.3	4	1.00	2	4237



3





Cone

Cone and Split

Cone and Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C9

Source:

Second Floor, Wall at Line 1

Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C9

Source:

Second Floor, Wall at Line 1

Sample Depth:

From Face to 5.4"

Description:

Second Floor, Wall at Line 1

Area, in²:

5.726

Volume, ft³

0.01751

Density, lbs./ft³

141.7

Sample Condition:

WET

Temperature at Loading, ⁰F:

70

Rate of Loading, psi/sec.

45 to 50

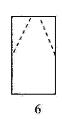
Laboratory Test Results

Core	Test	Unit	Load	Uncorr,	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C9	09/16/08	141.7	34.7	6057	1.00	4	6057



3

5



Cone

Cone and Split

Cone and Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C10

Source:

Second Floor, Beam at Line 4

Date:

September 16, 2008

Technician;

M. Sullivan

Test Data

Core Number:

C10

Source:

Second Floor, Beam at Line 4

Sample Depth:

Composite Topping & Beam - Face to 4.46"

Description:

Second Floor, Beam at Line 4

Area, in²:

5.726

Volume, ft3

0.01454

Density, lbs./ft³

149.0

Sample Condition:

WET

Temperature at Loading, ⁰F:

70

Rate of Loading, psi/sec.

45 to 50

Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C10	09/16/08	149.0	48.5	8470	0.98	4	8259



3 Cone and

Shear

Shear

5



Cone

Cone and Split

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C11

Source:

Second Floor, South Wall Column Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C11

Source:

Second Floor, South Wall Column at Line 13

Sample Depth:

From Face to 4,66"

Description:

Second Floor, South Wall Column at Line 13

Area, in²:

5.726

Volume, ft³

0.01545

Density, lbs./ft³

141.6

Sample Condition:

WET

Temperature at Loading, ⁰F:

70

Rate of Loading, psi/sec.

45 to 50

Laboratory Test Results

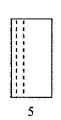
Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C11	09/16/08	141.6	34.9	6093	0.98	4	5983

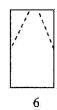


2

3

4





Cone

Cone and Split

Cone and Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

reinforcement and concrete thickness of test locations.

Reviewed: Darrell A. Gilman, CMT Manager

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C12

Source:

Second Floor, Beam at Line 17.5 Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C12

Source:

Second Floor, Beam at Line 17.5

Sample Depth:

From Face to 3.47"

Description:

Second Floor, Beam at Line 17.5

Area, in²:

5.726

Volume, ft3

0.01161

Density. lbs./ft³

144.8

Sample Condition:

WET

Temperature at Loading, ⁰F:

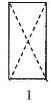
70

Rate of Loading, psi/sec.

45 to 50

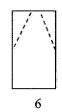
Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C12	09/16/08	144.8	46.0	8032	0.94	4	7550



3

5



Cone

Cone and Split

Cone and

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C13

Source:

Second Floor, Top of Girder Line Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C13

Source:

Second Floor, Top of Girder Line 18

Sample Depth:

From Face to 4.05"

Description:

Second Floor, Top of Girder Line 18

Area, in²:

5.726

Volume, ft3

0.01346

Density, lbs./ft3

140.3

Sample Condition:

WET

Temperature at Loading, ⁰F:

70

Rate of Loading, psi/sec.

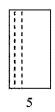
45 to 50

Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
*		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C13	09/16/08	140,3	43.1	7527	0.96	3	7256



3





Cone and Split

Cone and

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

434 Cony Road, Augusta, Maine 04330 Phone:(207) 621-8334 Fax: (207) 626-9094

Obtaining & Testing Drilled Cores & Sawed Beams of Concrete ASTM C42

Project:

Little Falls Landing

Project Number:

14134

Client:

Resurgence Engineering

Sample Number:

C14

Source:

Second Floor, South Wall Column Date:

September 16, 2008

Technician:

M. Sullivan

Test Data

Core Number:

C14

Source:

Second Floor, South Wall Column at Line 30

Sample Depth:

From Face to 5.31"

Description:

Second Floor, South Wall Column at Line 30

Area, in²:

5.726

Volume, ft³

0.01717

Density. lbs./ft3

146.2

Sample Condition:

WET

Temperature at Loading, ⁰F:

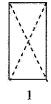
70

Rate of Loading, psi/sec.

45 to 50

Laboratory Test Results

Core	Test	Unit	Load	Uncorr.	Correction	Break Type	Corrected
		Weight		Strength			Strength
Number	Date	(Lbs./ft ³)	(Kips)	(Psi)	Factor		(Psi)
C14	09/16/08	146.2	34.5	6	1.00	3	6018



3

5



Cone

Cone and Split

Cone and Shear

Shear

Columnar

Other

Remarks:

3" core samples were used due to spacing of the concrete

Reviewed: Darrell A. Gilman, CMT Manager

reinforcement and concrete thickness of test locations.

Sent:

APPENDIX C SUMMIT GEOTECHNICAL REPORT AND CONCRETE TESTING



ENVIRONMENTAL CONSULTING + GEOTECHNICAL ENGINEERING + CONSTRUCTION MATERIALS TESTING

Geotechnical Report Little Falls Mill Renovation Depot Street South Windham, Maine

Prepared for:

Resurgence Engineering & Preservation, Inc.

Prepared by:

Summit Geoengineering Services Project #17417 November 2008



ENVIRONMENTAL CONSULTING + GEOLECHNICAL ENGINEERING + CONSTRUCTION MATERIALS TESTING

November 14, 2008 Summit #17417

Alfred Hodson, P.E. Resurgence Engineering 132 Brentwood Street Portland, Maine 04103

Reference:

Geotechnical Engineering Services

Little Falls Mill Renovation – 13 Depot Street, South Windham, Maine

Dear Al,

This report summarizes our geotechnical investigation for the proposed Little Falls Mill renovation located at 13 Depot Street in South Windham, Maine. Our scopes of service was to evaluate the subgrade conditions beneath the western portion of the facility considered for renovation and provide geotechnical recommendations for the design and construction of new foundations, if necessary, during the retrofit. Our work included performing 5 test borings and 2 probes at the site, performing laboratory testing, and preparing this report summarizing our findings and geotechnical recommendations.

1.0 Project and Site

The project consists of renovating the existing Little Falls Mill for new condominium units. We understand preliminary retrofit includes ground level car parking with second and third floor condominium units. The footprint proposed for retrofit is approximately 19,000 square feet. The portion of the Little Falls Mill being considered for renovation is the larger section oriented east to west, including the building portions extending over the Presumpscot River towards the existing hydro dam. The Presumpscot River to the southwest, Route 202 toward the west, Depot Street to the north, and a railroad line toward the east borders the site.

The portion of the Little Falls Mill structure considered for renovation generally consists of reinforced concrete framing supported on spread footings or short piers overlying shallow bedrock within the eastern portion and supported on 3 by 3 foot diameter concrete piles/piers founded on bedrock within the western portion. Significant portions of the ground floor slab within the west portion is clear spanned over the Presumpscot River supported by concrete grade beams founded on pile caps. An approximate 3 to 6 foot of void space was encountered beneath the existing slab portions extending over the Presumpscot River. Depth to bedrock beneath the existing ground floor slab ranged from approximately 1 to 30 feet.

0. 7				
Lewiston:		Bangor:	Augusta:	Portland:
HERE MEETS ON	and the state of the state of the	Metal and the Court of Man	Alternation & Agreen M. Martin.	1 Judgergraf Weignard
1 . 1 2 Pet 1186 w	Control of the case	has that is said and the first is much	Salar and carried and alternative of the salar Salar and	Let 1985 in dust

Existing grades within the proposed retrofit footprint range from an approximate elevation of 110 feet at the northeast corner to an approximate elevation of 90 feet at the southwest corner located within the Presumpscot River. The existing first floor slab elevation is at or near elevation 94 feet. The Presumpscot River elevation was near elevation 92 feet during our geotechnical investigation.

2.0 Explorations & Laboratory Testing

Summit observed the subsurface conditions at the site with the drilling of 5 borings and 2 probes on September 30 and October 1, 2008. The borings were drilled to depths of refusal ranging from 4.2 to 34.7 feet, elevations 94 to 65 feet, using an ATV drilling rig provided and operated by Northern Test Boring under contract to Summit. The borings were advanced using driven casing with rotary wash. The probes were advanced using 2½-inch solid stem augers. Standard 24-inch long split spoon samples were obtained at continuous and 5-foot intervals. A 3-foot rock core was performed from 18 to 21 feet, elevations 76 to 73 feet, at boring B-1. The boring and probe explorations were located prior to drilling by pacing and taping from existing site features. Figure 1, Boring Location Plan, is attached at the end of this report under Appendix A. Logs of the explorations are attached under Appendix B.

Seven samples were collected and tested for Moisture Contents in accordance with ASTM D2216 for the glacial marine clay deposits encountered at depths ranging from 5 to 29 feet. The moisture contents were found to range from 23.2 to 45.3 percent. A moisture content of 56.1 percent was obtained at boring B-4, from a depth of 10 to 12 feet, for an organic silt layer. Atterberg Limits in accordance with ASTM D4318, grain size analyses in accordance with ASTM D422, and Consolidation in accordance with ASTM D2435 were performed on an undisturbed shelby tube sample collected from boring B-5 at a depth of 17 to 19 feet. Copies of the lab results are attached in Appendix C. Results are summarized on the following table:

	L	ABOR	ATOR	Y RESUL	IS SUMM	IARY TAI	BLE		
Sample						Atterberg Limits		Moisture Contents	
Location	P'c	Cr	Cc	%Sand	%Silt	%Clay	LL	PΙ	WC
B-5, UT-2	4.9 ksf	0.03	0.41	5.8%	55.6%	38.6%	38	16	37.9%

Note: Based on ASTM D422 test and Unified Soil Classification System particle distribution.

3.0 Subsurface Conditions

In general, the subgrade encountered at the site consisted of 5 to 11 feet of *fill* overlying 1.5 to 6 feet of *glacial alluvium* overlying 4 to 20 feet of *glacial marine deposits* overlying *bedrock* encountered at a depth range of 4.2 to 34.7 feet, near elevations 94 to 65 feet. *Topsoil* was encountered at the surface of borings B-3 through B-5 and probes P-1 and P-2 with a thickness range of 3 to 5 inches. *Groundwater* was encountered at a depth range of approximately 0.5 to 8 feet, near elevation 92 feet.

The *topsoil* encountered at the site generally consisted of dark brown silt with rootlets and is visually classified as ML in accordance with the Unified Soils Classification System (USCS). The topsoil was generally loose and moist.

Fill encountered at the site generally consisted of dark brown sand with little gravel, silt, and organics and is visually classified as SM-SP in accordance with the Unified Soil Classification System (USCS). Occasional to predominate brick, ash, coal, and/or wood debris was also encountered within the fill. SPT-N values for the fill ranged from weight of sampler to 5 blows per foot (bpf) to 58 bpf and averaged 2 bpf, indicating very loose conditions. The fill was generally moist to wet with depth.

Glacial alluvium encountered at the site generally consisted of dark brown sand with some to little gravel and trace of silt and is visually classified as SW in accordance with the USCS. SPT-N values for the glacial alluvium ranged from 7 to 11 blows per foot (bpf) indicating loose to compact conditions. The glacial alluvium was generally wet.

The *glacial marine deposits* encountered at the site generally consisted of gray medium-fine sand with some to little silt and clay or olive grading to gray silty clay with trace of thin sand seams. The sandy layer is visually classified as SM and based on the atterberg limits the clayey layer is classified as CL (lean clay) in accordance with the USCS. SPT-N values for the sandy glacial marine ranged from 5 to 17 bpf and averaged 13 bpf indicating compact conditions. SPT-N values for the clayey glacial marine deposits ranged from 1 to 8 bpf and averaged 3 bpf indicating firm to soft conditions. Pocket penetrometer readings recorded for split spoon cohesive samples ranged from 4,000 to 500 psf or less. Field vane shear tests conducted for soft clay layers resulted in shear strengths ranging from 760 psf to 1,140 psf. The moisture contents, atterberg limits, and the consolidation test results indicate the gray silty clay is slight to moderate over-consolidated. The glacial marine was generally moist grading to wet.

Bedrock was encountered at a depth range of 4.2 and 34.7 feet, elevations 94 to 65 feet. A rock core sample was obtained from a depth of 18 to 21 feet (approximate elevations 76 to 73 feet) at boring B-1. The bedrock consists of medium to soft, moderately fractured and weathered, medium grained dark gray Schist with muscovite-biotite-quartz seams. The bedrock is estimated as having a hardness value of 3 using the Mohs hardness scale.

The joints within the bedrock were both dipping to steep (35 to 85 degrees) and were generally moderately to slightly weathered, undulated, rough, and loose. The percent recovery of the core (ratio of total recovered sample length divided by the total coring length expressed as a percent) was 100 percent for bedrock from 18 to 21 feet. The RQD (Rock Quality Designation) of the rock core is expressed as the sum of rock pieces 4 inches or greater in length compared to the length of the core sample. The RQD of the cored rock was 31 percent. The RQDs and recoveries are shown on the enclosed boring log. Based on the degree of fracturing, weathering, and the RQD of the core, the bedrock encountered is considered to be of fair quality.

Groundwater was observed within the open boreholes at a depth range of 0.5 to 8 feet, near an approximate elevation of 92 feet. Due to the close proximity to the Presumpscot River, groundwater is generally influenced by the river elevation.

4.0 Evaluation

Foundation loadings and/or proposed site grading were not available for this report. In summary, the following geotechnical issues should be considered as part of design and construction for foundations, if necessary, during renovation of the Little Falls Mill:

- Presence of underlying very loose sandy fill mixed with brick, ash, coal, and/or wood and its potential for settlement, liquefaction, and/or low bearing capacity.
- Presence of underlying soft glacial marine silty clay and its potential for settlement where fills, if required, are greater then approximately 5 to 8 feet.
- Presence of significant groundwater and/or the Presumpscot River where excavations, if required, are performed below an approximate elevation of 92 feet.

The biggest geotechnical consideration for design of new foundations, if necessary, is the potential for settlement of the loose existing fill and/or soft glacial marine clay layer. Due to the relatively large void space within the western portion of the building, its proximity to the Presumpscot River, and the very loose underlying fill, a structural slab supported by installed and/or the existing piles is recommend.

In general, we recommend a structural slab and/or footings supported by existing or installed piles be considered from column line 18 to 47. A schematic site plan included column lines generated by Resurgence Engineering and Preservation is included with this report in Appendix A. We anticipate conventional slab on grade and/or spread footings to be suitable for foundations constructed within the eastern portion of the site from column line 1 to 18 founded on competent bedrock and/or suitable subgrade soils.

To further evaluate actual column locations suitable for slab on grade/spread footings or structural slab/pile foundations, additional test pits and/or test borings could be performed to better profile the presence and thickness of the loose fill beneath the existing ground level slab.

5.0 Foundation Recommendations

General

Foundation loadings and/or proposed site grading were not available for this report. Design parameters for new foundations, if necessary during renovation, are based on the observed subgrade conditions. We recommend that Summit be retained to review final construction documents relavent to the recommendations in this report.

A structural slab and/or footings supported by existing or installed piles are recommended from column line 18 to 47. Conventional slab on grade and/or spread footings are anticipated to be suitable for foundations constructed within the eastern portion of the site from column line 1 to 18. Preliminary foundation design recommendations are provided below.

Conventional Foundations

We recommend new foundations be proportioned using an allowable bearing pressure of 3,000 psf for footings constructed on soil (where suitable) and 20,000 psf for footings constructed on bedrock. Total settlement for this allowable bearing pressure is estimated to be less than 1 inch for footings on soil and negligible for footings constructed on bedrock. The bearing pressures and associated settlements are based on the following conditions:

- Exterior footings are placed to a minimum depth of 4 feet or on competent bedrock to provide adequate frost protection.
- Footings are backfilled with Foundation Backfill compacted to a minimum of 95 percent of its maximum dry density, determined in accordance with ASTM D1557.
- Subgrade beneath footings consists of competent bedrock, proof-rolled suitable subgrade, compacted Foundation Backfill, and/or Crushed Stone.

The subgrade for the Little Falls Mill footprint are categorized as site classification D for foundations on soil and site classification B for foundation on bedrock in accordance with the 2006 International Building Code. The existing loose fill located within the western portion of the building within or near the Presumpscot River may be susceptible to liquefaction during seismic events. Due to this we recommend constructed piles, if necessary, be founded on competent bedrock to support new foundation loads within this portion.

Foundation Backfill should be placed in 6 to 12 inch thick lifts and compacted to 95 percent of its maximum dry density in accordance with ASTM D1557, Modified Proctor. Foundation Backfill passing the 3-inch sieve and containing no particles larger than 6 inches should meet the following gradation:

FOUNDATION BACKFILL	
Sieve Size	Percent Passing
3 inch	100
½ inch	25-70
No. 40	0-30
No. 200	0-5

(Type C Aggregate, 703,06, Maine DOT Standard Specifications, Revision of 2002)

Slabs on grade (where suitable) can be designed using a subgrade modulus of 200 pci.

We recommend slabs on grade be constructed on a minimum 12-inch thick layer of Foundation Backfill. The Foundation Backfill should be placed and compacted to 95 percent of its maximum dry density determined in accordance with ASTM D1557. Additional fill required beneath the Foundation Backfill should consist of Granular Borrow. The portion of Granular Borrow soil passing the 3-inch sieve should meet the following:

GRANULAR BORROW	
Sieve Size	Percent finer
3 inch	100
No. 40	0 to 70
No. 200	0 to 10

Reference: MDOT Specification 703.19, Granular Borrow

The maximum particle size should be limited to 6 inches. Granular Borrow should be placed in a maximum of 12-inch lifts, and be compacted to 95 percent, in accordance with ASTM D1557.

Depending on design grading and the potential for surface water infiltration due to the surrounding topography perimeter underdrains may be required, particularly if foundations extend below an elevation of 92 feet. At a minimum, we recommend that exterior grades slope away from the building to reduce runoff water from infiltrating the Foundation Backfill.

Underdrains, if used, should consist of 4 inch rigid perforated PVC surrounded by a minimum of 6 inches of crushed stone wrapped in filter fabric (Mirafi 140N or similar) to prevent clogging from the migration of the fine soil particles in the foundation backfill soils. The underdrain pipe should be outlet to a location where it will be free flowing. Where exposed at the ground surface, the ends of pipes should be screened or otherwise protected from entry and nesting of wildlife, which could cause clogging.

Pile Supported Foundations

Based on information provided by Resurgence Engineering and Preservation Inc., we understand western portions of the Little Falls Mill are supported on 3 by 3 foot concrete piles. It is anticipated the existing concrete piles are end bearing on bedrock. In general, the ultimate end bearing capacity of concrete piles end bearing on competent bedrock is estimated as 0.25 to 0.33f'c of the pile concrete strength. Based on the bedrock encountered during our exploration and the provided concrete pile footprint, we estimate an ultimate end bearing capacity of the existing concrete piles to range from 500 to 1,500 kips. To further evaluate the capacity of the existing concrete piles, we recommend unconfined compression testing be performed for samples of the bedrock and concrete cores of the existing piles.

New piles, if necessary, could consist of short timber piles, pre-cast concrete piles, steel pipe piles, and/or short H-piles. Piles should be driven to competent bedrock. Depending on lateral loadings, battered piles may be necessary. Alternatively, micro piles could be used depending on design foundation loadings. If additional pile supported foundations are proposed, Summit can be made available to provide additional design recommendations once foundation loadings have been determined. Depending on the loadings and resulting pile size, a track mounted vibratory pile driver or similar may be adequate to install the short piles.

6.0 Earthwork Consideration

Bedrock Excavation

Depending on site grading and foundation design, excavations may require bedrock removal within the eastern portion of the site. Based on the degree of fracturing and rock hardness, bedrock excavations with mechanical tools such as a large excavator, hoe ram, or jackhammer will be effective for removing only small quantities of bedrock. If significant bedrock removal is necessary controlled blasting will be required to excavate the rock. Care should be taken during the blasting process not to excessively disturb the rock forming the sidewalls and base of the excavation. A blasting plan should be developed and implemented to control flyrock and to limit peak particle velocity, vibration frequency, and air-blast overpressure as appropriate.

Backfill Placement

Placement of Foundation Backfill and/or Granular Borrow at or near groundwater, anticipated near elevation 92 feet, may become difficult if heavy compaction equipment is used near the water surface. We recommend that fill placed at or below the groundwater level be placed after dewatering and compacted using lighter compaction equipment such as a vibratory plate compactor. Alternatively, crushed stone may be used in place of Foundation Backfill or Granular Borrow. Areas that become disturbed should be over excavated and stabilized using crushed stone, and/or geotextile filter fabric (such as Mirafi 140N or equivalent). Crushed stone should be tamped to lock the stone structure together.

Groundwater Control & Excavation Stability

Temporary dewatering may be required for excavations at the site. Moderate groundwater flow is possible within the sandy fill. We believe that shallow sumps and conventional submersible pumps will be sufficient to control groundwater during construction for minimal onsite cut areas. Dewatering within deeper cuts or heavy seepage from the adjacent Presumpscot River may require special dewatering equipment and/or techniques depending on the magnitude and presence of groundwater flow.

Due to the sensitivity of excavation stability for the very loose sandy fill and/or soft clay soils and the potential for significant groundwater, excavation support including braced excavations such as sheet piling, shoring, and/or other excavation support may be required for excavation performed adjacent to the Presumpscot River or below elevation 92 feet. We recommend that construction excavation plans by reviewed by Summit. If requested, Summit can be made available to design and provide construction excavation plans.

7.0 Closure

This report has been prepared for the exclusive use of Resurgence Engineering and Preservation, Inc. for the Little Falls Mill Renovation in South Windham, Maine. Our recommendations are based on professional judgment and generally accepted principles of geotechnical engineering. No other warranty is expressed or implied. Analyses, evaluations, and recommendations are based on widely spaced explorations and project construction information provided by others. Some changes in subsurface conditions from those presented in this report may occur and would not be evident until construction. Should subsurface conditions or project construction information differ materially from those described in this report, Summit should be notified so that we can re-evaluate our recommendations.

It is recommended that this report be made available in its entirety to contractors for informational purposes and be incorporated in the construction Contract Documents.

We appreciate the opportunity to serve you during this phase of your project. If there are any questions or additional information is required, please do not hesitate to call.

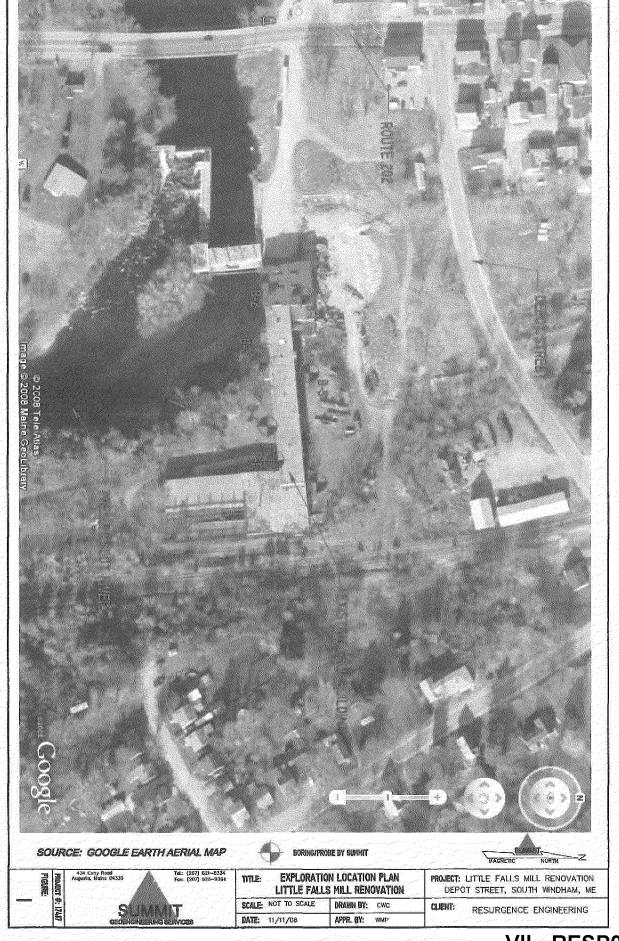
Sincerely yours,

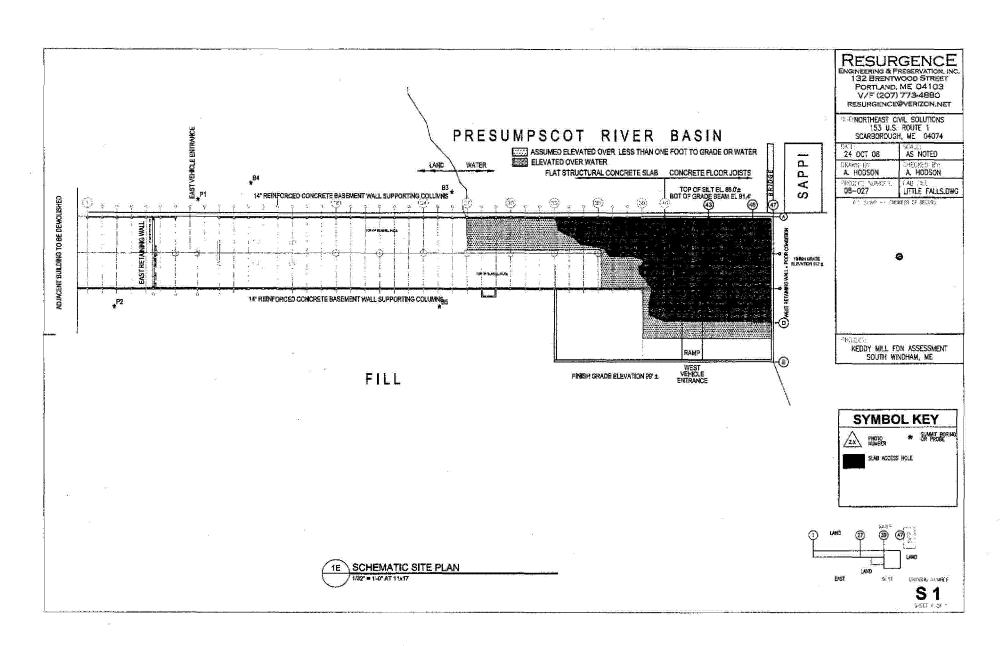
Summit Geoengineering Services,

Craig W. Coolidge, P.E.

Senior Geotechnical Engineer

APPENDIX A EXPLORATION LOCATION PLAN SCHEMATIC SITE PLAN





APPENDIX B EXPLORATION LOGS

EXPLORATION REPORT COVER SHEET

The exploration report has been prepared by the geotechnical engineer from both field and laboratory data. Differences between field logs and exploration reports may exist.

It is common practice in the soil and foundation engineering profession that field logs and laboratory data sheets not be included in engineering reports, because they do no represent the engineer's final opinion as to appropriate descriptions for conditions encountered in the exploration and testing work. The field logs will be retained in our office for review. Results of laboratory tests are generally shown on the borings logs or are described in the text of the report as appropriate.

Drilling and Sampling Symbols:

SS = Split Spoon

ST = Shelby Tube - 2" OD, disturbed

UT = Shelby Tube - 3" OD, undisturbed

HSA = Hollow Stem Auger

CS = Casing - size as noted

Sv = Vane Shear

PP = Pocket Penetrometer

RX = Rock Core - size as noted

Hyd = Hydraulic advance of probes

WOH = Weight of Hammer

WOR = Weight of Rod

GS = Grain Size Data

PI = Plasticity Index

LL = Liquid Limit

w = Natural Water Content

USCS = unified Soil Classification System

Water Level Measurements:

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable groundwater levels. In impervious soils, the accurate determination of groundwater elevations may not be possible, even after several days of observations; additional evidence of groundwater elevations via observation or monitoring wells must be sought.

Gradation Description and Terminology:

Boulders:

Over 8 inches

Trace:

Less than 5%

Cobbles:

8 inches to 3 inches

Little:

5% to 15%

Gravel:

3 inches to No.4 sieve

Some:

15% to 25%

Sand:

No.4 to No. 200 sieve

Silty, Sandy, etc.:

Greater than 25%

Silt:

No. 200 sieve to 0.005 mm

Clay:

less than 0.005 mm

Density of Granular Soils and Consistency of Cohesive Soils:

CONSISTENCY OF CO	HESIVE SOILS	DENSITY OF GRANULAR SOILS			
SPT N-value blows/ft	Consistency	SPT N-value blows/ft	Relative Density		
0 to 2	Very Soft	0 to 3	Very Loose		
3 to 4	Soft	4 to 9	Loose		
5 to 8	Firm	10 to 29	Compact		
9 to 16	Stiff	30 to 49	Dense		
17 to 32	Very Stiff	50 to 80	Very Dense		
>32	Hard				

	- ; - ; .	SUMM			SOIL BORING		Boring #: B-1
,	GEOF	ENGINEERI		ES		ill Renovation	Project #: 17417
		434 Cony		-	Depot Street	and an a	Sheet: 1 of 1
	~	Augusta, Maii			South Windha		Prep by: CWC
Drilling		Nothern Test Bo	oring			Approximately 94	
Forema Summi		Mike Nadeau Craig Coolidge,	DE				ring & Preservation
		G METHOD		ED.	**************************************	Date Comp:	9/30/2008
	: ATV		SAMPL Type: 24" S			ATER DEPTH Elevation	Comments
		ich D-50	Hammer: 14		Date Depth 9/30/2008 2.5 ft	91.5 ft +/-	Water Measurement
		asing/RW	Fall: 30°	دهيو ن	7/30/2000 2.5 II	31.3 1(1/-	water measurement
Depth			E DATA		ENGINEERIN	GEOLOGIC	
(ft.)	No.	Pen/Rec (in.)		Blows	DESCRIPTIO		DESCRIPTION
	1000			<u> </u>	6-inch thick concrete slat	**	CONCRETE SLAB
1	<u> </u>			 	Void space underlying slab to a	denth of	6"
^-					3.3' with standing water at 2.5'		VOID SPACE
2	 	 	 	 	S.S. William State of L.S.		, our maret
- "	 				1		
3		 		 	Standing water of 2 51 Column 1-	trotion?	
) -	 	0.7.15	33.5	 	Standing water at 2.5' (river ele		2.21
	S-1	21/5	3.3 - 5	1	Dark brown SAND, little to tra-	- 10	3.3'
4_	<u> </u>		ļ		Silt, and Organics, very loose,		FILL
_		 		1	Occasional brick, ash, and/or co	oal debris	1
5_	ļ			WOH	a -		
	S-2	24/6	5 - 7	1	Same as above, very loose, wet	, SM-SI	*
6_				WOH			
				1	·		
7			2 20 3440	WOH			
	S-3	24/5	7 - 9	1	Same as above, very loose, wet	, SM-SI	
8				WOH			
-				WOH			3
9		T		WOH			
	S-4	24/10	9 - 11	1	Same as above, very loose, wet	SM-SF	
10				 	,,	\$ control control	1
		 		3	Light gray medium-fine SAND	little Sil	10'
11				1	and Organics, loose, wet, SM	, 11010 011	GLACIAL MARINE
^^-		 		 	Wood debris in wash water		ODATOM INTERNE
12	 				(possible wood cribbing)		
1.2.	S-5	24/8	10 14	2	Gray medium-fine SAND, little	. CHa	
13	3-2	24/8	12 - 14			SIII	
13	 	 		4	trace Organics, wet, SM		1
14		{ 	7.7.3.3.7 A	1	<i>y</i> :		
14_	a -	1 04/24		1			-
15	S-6	24/24	14 - 16	1	Gray Silty CLAY, trace fine Sa	na	14'
15_	ļ			1	very soft, wet, CL		PP = 500 psf
				1			ļ
16_				1			
			······		Sv = 1,020 psf, 65 psf remold		
17_					i.		
					Sv = 1,065 psf, 45 psf remold		
18_							1
	S-7	2/2	18 - 18.2	50/2"	Rock fragments in spoon tip		
19		ROCK	CORE		Medium-soft, medium grained,	dark gra	18.2'
	Run	Recovery	Depth	RQD	SCHIST with miscovite-biotite		BEDROCK
20	C-1	100%	18 - 21	31%	moderately fractured and weath		Mohs Scale = 3
-		1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			Joints dipping to steep (35 to 85		i i tani tu'una
21		_		 	undulated, rough, and loose		
	17-1		- · · · · · · · · · · · · · · · · · · ·		End of exploration at 21'	, t = 100 -	21'
22		 			Die of exploration at 21		***
		 		<u> </u>			
	L	L		L			

		SUMN	ПТ	2110-0-	SOIL BORING LOG	Boring #: B-2	
)	GEOF	NGINEERIN		ES	Project: Little Falls Mill Renovation	Project #: 17417	
į		434 Cony	Road		Depot Street	Sheet: 1 of 1	
		Augusta, Mair			South Windham, Maine	Prep by: CWC	
Drilling	g Co:	Nothern Test Bo	oring		Ground Elevation: Approximately 9		
Forema		Mike Nadeau	·····		Reference: Site Plan by Resurgence Engine		
Summi		Craig Coolidge,			Date started: 9/30/2008 Date Comp:	10/1/2008	
		METHOD	SAMPI		GROUND WATER DEPTH		
Vehicle			Type: 24" S		Date Depth Elevation	Comments	
		ch D-50	Hammer: 14	0 LB	9/30/2008 2.5 ft 91.5 ft +/-	Water Measurement	
Method	i: 4" C:	asing/RW	Fall: 30°				
Depth			E DATA		ENGINEERING	GEOLOGIC	
(ft.)	No.	Pen/Rec (in.)	Depth (ft)	Blows	DESCRIPTION	DESCRIPTION	
					6.5-inch thick concrete slat	CONCRETE SLAB	
1			ľ		Void space underlying slab to a depth of	6.5"	
	i -				5.6' with standing water at 2.5'	VOID SPACE	
2			'n 'm===================================	1 11 11 11 11 11 11	and the second of the second o	1	
						1	
		ļ		 	Constitution of the state of th		
3_	ļ			<u> </u>	Standing water at 2.5' (river elevation)	/	
1	<u> </u>						
4_		<u> </u>				1	
"							
5							
] ~ -	S-1	24/2	5 - 7	WOR	Soil surface at 5.6'	j	
6	' 				Dark brown SAND, little to trace Gravel	5.6'	
Ÿ	<u> </u>	 		1000		FILL	
					Silt, and Organics, very loose, wet, SM-SI	FILL	
7_					Occasional brick, ash, and/or coal debris	į į	
	S-2	24/6	7 - 9		Same as above, very loose, wet, SM-SI		
8_	<u>L</u>			WOR			
_				WOR			
9		*		WOH			
-	S-3	24/10	9-11		Same as above, very loose, wet, SM-SI		
10	9.9.	27110		1	banto do do ro, roxy toobo, not, bitt bi		
10-				5	Dark brown Gravelly SAND, trace Silt	10'	
1.1	<u> </u>				· · · · · · · · · · · · · · · · · · ·	1 T T-	
11_				6	compact, wet, SW	GLACIAL ALLUVIUM	
	S-4	4/4	11 - 11.3	50/4"	Cobble at 11.3 ^t		
12_	L						
1 7							
13		I .	····	1		4	
			~ 1 ~ · · · · · · · · · · · · · · · · · 				
14		†	Antonio i	 			
****	S-5	24/5	14 16		Same as above, compact, wet, SW	,	
12	3-3	24/5	14 - 16	2	same as above, compact, wet, 5 w	, , , , , , , , , , , , , , , , , , ,	
15_	 	ļ		10			
		<u> </u>		10		j	
16_				3	4-2-2		
	S-6	24/10	16 - 18	7	Gray medium-fine SAND, some to little	16'	
17		· · · · · · · · · · · · · · · · · · ·	***************************************	7	Clay and Silt, little to trace Gravel.	GLACIAL MARINE	
				7	compact, wet, SM	and the state of t	
18				7	ಸಂಪರ್ಣಗೃತ್ತಿ ಸಂಪ್ರೆಸ್ ಪ್ರತಿ ಪ್ರತಿ ಸಿನ್ನಿಕ್ ಸಿ		
10	C 7	24/0	10 00		Como og obovo comment met Chi	į	
	<u>S-7</u>	24/9	18 - 20	3	Same as above, compact, wet, SM	1	
19_	<u> </u>	<u> </u>		7			
				7			
20_				6			
	S-8	22/10	20 - 21.8	10	~		
21				6			
~~* 		<u> </u>	· · · · · · · · · · · · · · · · · · ·	9			
່ວາ					Darla Carresses and an artist	1	
22_			· · · · · · · · · · · · · · · · · · ·	50/4"	Rock fragments at spoon tip		
	L		- Transiti		End of exploration at 21.8', refusal	21.8' BEDROCK	

<u> </u>		SUMM	ПТ		SOIL I	ORING I	LOG	Boring #:	B-3
. ,	GEOE	NGINEERIN		ES .	Project: Little Falls Mill Renovation			Project #:	17417
		434 Cony	Road			Depot Street		Sheet:	1 of 1
		Augusta, Mair		نامو		South Windham		Prep by:	CWC
Drilling	Co:	Nothern Test Bo	ning		Ground Elevation:		proximately 92 ft		
Forema		Mike Nadeau			Reference:	Site Plan Topogra			
Summit	الربانات المساحد	Craig Coolidge,			Date started:		Date Comp:	10/1/2008	
		METHOD	SAMPL			GROUND WAT			2
Vehicle			Type: 24" S		Date	Depth	Elevation	Commen	
		ch D-50 asing/RW	Hammer: 140 Fall: 30"	TR	10/1/2008	0.5 ft	91.5 ft +/-	Water Measuremer	u .
Depth	i. 4 Ca		E DATA			ENGINEERING		GEOLOGI	r
(ft.)	No.	Pen/Rec (in.)		Blows		DESCRIPTION		DESCRIPTION	
/re/	S-1	24/7	0 - 2	1	I and the second se	Dark brown SILT, rootlets, moist, MI.			7
,	3-1	24(1	0-2	2	Dark brown SAN			TOPSOIL 5"	
l_		· · · · · · · · · · · · · · · · · · ·		3	organics, little to			FILL	
ے ا		<u> </u>	- 4				1 our	FILL	
2_	-	ļ		1	loose, wet, SM-SI		G 1		
	S-2	24/6	2 - 4	1	Dark brown SAN	175		1	
3_				1	Silt, and Organics				
				11	Occasional brick,	ash, and/or coa	l debris		
4				2_	<u>'</u>		4		
		1			Į.			j	
5	<u> </u>	137 2 2 2 2 2		-				1	
1 7	S-3	24/7	5 - 7	1	Same as above, ve	ery loose, wet. S	SM-SI	4	
6	X_X			i		Land the second and t			
ľŸ		 		1	1			,	
7				1	1				
	0.4	24/10	7 0		Como so ab	Smrtacea 6	em et		
,	S-4	24/10	7-9	1	Same as above, ve	ary mose, wer, s	16-1VL		
8_		<u> </u>		3		6 1: 4 6		101	
			:	5	Dark brown SAN	D, little Gravel,	trace	8'	
9_				5	Silt, wet, SW			GLACIAL ALI	LUVIUM
								<u> </u>	
10_					Color change in w			9.5'	
	S-5	24/20	10 - 12	1	Gray Silty CLAY		1	GLACIAL MA	RINE
11_				WOH	very soft, wet, CI			PP = 500 psf	
1 7				1]			wc = 41.9%	į
12				WOH					
	T	<u> </u>		<u></u>	Sv = 935 psf, 65 p	sf remold			
13		1				and the second second		1	
1 **					Sv = 1,140 psf, 75	nsf remold			1
14					zarac por, /s	Lor ramona			
* -	S-6	24/24	14 - 16	1	Same as above, ve	in post wat Ci		PP = 500 psf	
15	3-0	Z4/Z4	14-10		paine as above, ve	ay son, wei, Cl	L	wc = 34.6%	
1,3				1		,		WC = 34.0%	
,,				1					
16				<u> </u>		-	:		
	UT-1	12/8	16 - 17	Hyd	Same as above, ve	ery soft, wet, Cl	= =	we = 28.0%	
17_				Push	L				.*
1					Unable to advance	shelby tube at	17	17'	
18_		L			<u>k</u>	•			
	S-7	24/10	18 -20	11	Gray medium-fine	SAND, some	to little		i
19				7	Clay and Silt, little				
			5 y - 2 y -	10	compact, wet, SM		¥		
20				4	a a configuration in State White				
	S-8	14/10	20 - 20.2	5	Same as above, co	minant wat Ch	4		1
21	3-8	1 ^{r4} /10	ZU = ZU.Z		Same as above, Cl	impaci, wei, 51v	Ä	1	ri
21_				7	n . i.e			1	
			- SAV.	50/2".	Rock fragments at				
22					End of exploration	1 at 21.2', refusa	al	21.2'	
								BEDROCK	

		SUMN	/IT		SOIL	BORING	LOG	Boring #: B-4
	GEOE	NGINEERIN	NG SERVICE	ES	Project:	Little Falls Mil		Project #: 17417
		434 Cony Augusta, Mair	Road			Depot Street South Windham	- Main-	Sheet: 1 of 1 Prep by: CWC
Drilling	Cor	Nothern Test Bo		· · · · · · · · · · · · · · · · · · ·	Ground Elevation:		proximately 99 f	All and the second seco
Forema		Mike Nadeau	oring .		Reference:	Site Plan Topogra		
Summi		Craig Coolidge,			Date started:	10/1/2008	Date Comp:	10/1/2008
DR Vehicle		METHOD	SAMPLI Type: 24" SS		D _4	GROUND WA		
		ch D-50	1 ype: 24 53 Hammer: 140		Date 10/1/2008	Depth 7 ft	Elevation 92 ft +/-	Comments Water Measurement
Method	l: 4" Ca	asing/RW	Fall: 30"					THE STATE OF THE S
Depth			E DATA	l sa		ENGINEERING		GEOLOGIC
(ft.)	No. S-1	Pen/Rec (in.) 24/16	Depth (ft) 0 - 2	Blows 2	Dark brown SILT	DESCRIPTION		DESCRIPTION TOPSOIL
1	3-1	24/10	V-2	$\frac{2}{3}$	Olive brown and			5"
- 1				5	trace fine Sand, fi		****	GLACIAL MARINE
2				4	<u>"</u>		4.	PP = 4,000 psf
3_				<u> </u>				
4							,	
-								
5								
-	S-2	24/24	5 - 7	2	Same as above, fi	rm, moist, CL		PP = 4,000 psf
6_				2				wc = 23.2%
_				2				
7_	,			2				
8			<u></u>	.,		•		Water at 7 ^t
l °-								
9		<u></u>		** * * *				
_				11.00	Softer drilling at	9	·—•	9'
10_			4					
	S-3	24/18	10 - 12	I	Olive Organic SII	LT, little fine Sa	and	we = 56.1%
11_				3	soft, moist, OL			
12				7	Dark brown SAN	D little Gravel	frace	11.5'
	.,			'	Silt, wet, SW	D, mule Graves	, wave	GLACIAL ALLUVIUM
13			· · · · · · · · · · · · · · · · · · ·		S and the second			
14_								
15	<u> </u>				End of exploration	n at 14.1', refus	al	14.1'
1.7					s.			BEDROCK
16								
"-								
17								4
						*	*	}
18_				- , , -]
19								
12				,				, · · · · · · · · · · · · · · · · · · ·
20			Maria Cara					
21								
						*		
22	THE BY	,	TAY 11					
					10.00			1

	· · · · · · · · · · · · · · · · · · ·	SUMM	HT		SOIL B	ORING I	LOG	Boring #: B-5
j ,	GEOE	NGINEERIN		ES	Project: Little Falls Mill Renovation			Project #: 17417
		434 Cony		 -		Depot Street		Sheet: 1 of 2
l		Augusta, Mair				South Windham	, Maine	Prep by: CWC
Drilling	Co:	Nothern Test Bo	ocing	1	Ground Elevation:	Арр	roximately 100 i	î:+/-
Forema	n:	Mike Nadeau			Reference:	Site Plan Topogra		
Summi		Craig Coolidge,			Date started:		Date Comp:	10/1/2008
		METHOD	SAMPL			GROUND WAT		
	: ATV		Type: 24" SS		Date	Depth	Elevation	Comments
			Hammer: 140) LB	10/1/2008	8 ft	92 ft +/-	Observed moisture change
	: 4" C		Fall: 30"				e i di i	
Depth	 		E DATA	701		NGINEERING		GEOLOGIC
(ft.)	No.	Pen/Rec (in.)		Blows	The second secon	ESCRIPTION	The second secon	DESCRIPTION
	S-1	24/17	0 - 2	1	Dark brown SILT,			TOPSOIL
1_				2	Dark brown SAND	7.		5"
				2	Silt, and Organics,			FILL
2_		A		3	Frequent brick, ash	, and/or coal d	lebris	
1								
3		I]			
1	Γ'''							
4		ļ.	:		1			
-								1
5		1			,			
	S-2	24/8	5 - 7	1	Same ac above mis	ad with brick	daheir	
6	3-2	2410	J = 1	1	Same as above, mixed with brick debris very loose, moist, SM-SP			4.
, o					very loose, moist, a	641-9L		
				1				
7_				WOH				
	S-3	24/5	7 - 9	1	Predominately brief			
8_				i	little soil (same as a	ibove), loose,	wei	
			t	1				
9				WOH				
								ļ
10		N.	1 34 3 1 1					
j -	S-4	24/10	10 - 12	1	Same as above, ver	y loose, wet, S	SP-SM	
11	<u> </u>			1		-		1
-	h			1				.
12	 			2	Thin organic Silt la	ver at 11.5		11.5'
l ^~-	S-5	24/7	12 - 14		Dark brown SAND		frace	GLACIAL ALLUVIUM
13	3-3	4711	12 - 14	4	Silt, wet, SW	, mule chavel,	WHAN.	CALL CALLED VIOLY
1 '			<u> </u>	5	DIL, WUL, DW		•	
14		 			1			[1
L 144 -					1			
1	<u> </u>	ļ 		****		**** · · · · · · · · · · · · · · · · ·		
15_					n da	>== ==	•	14.5'
	S-6	24/24	15 - 17	2	Gray Silty CLAY, 1	trace fine Sand	1	GLACIAL MARINE
16_				1	soft, wet, CL			PP = 500 psf
				1				wc = 45.3%
17_			738	1]			
	UT-2	24/18	15 - 17	Hyd	Same as above, soft	t, wet, CL		wc = 37.9%
18				Push				P'c = 4.9 ksf
1 7								$C_c = 0.41, C_r = 0.03$
19				*	1			Torvane = 575
_		- · · · · · · · · · · · · · · · · · · ·			1			LL = 38, PI = 16
20					ļ			Sand = 5.8%
	 -							Silt = 55.6%
21	ļ				en - och f 100 -	of rameld		10 P
41					Sv = 860 psf, 120 p	er remoid		Clay = 38.6%
					0.000 0.110	p		<u> </u>
22_		 			Sv = 870 psf, 110 p	si remold		<u>.</u>
					<u> </u>			

		SUMN	ПТ		SOIL BORING LOG	Boring #: B-5
				ES	Project: Little Falls Mill Renovation	Project #: 17417
1		434 Cony	Road		Depot Street	Sheet: 2 of 2
<u> </u>		Augusta, Maii			South Windham, Maine	Prep by: CWC
Drilling		Nothern Test Be	oring		Ground Elevation: Approximately	
Forema		Mike Nadeau	22 -		Reference: Siteplan Topography by Sherida	
Summi		Craig Coolidge,			Date started: 10/1/2008 Date Comp:	10/1/2008
	: ATV	METHOD	SAMPL Type: 24" S		GROUND WATER DEPTH Date Depth Elevation	Comments
		ich D-50	Hammer: 14		10/1/2008 8 ft 92 ft +/-	Observed moisture change
		asing/RW	Fall: 30°		3211.0	Cost fee mostate shange
Depth			E DATA	· · · · · · · · · · · · · · · · · · ·	ENGINEERING	GEOLOGIC
(ft.)	No.	Pen/Rec (in.)	Depth (ft)	Blows	DESCRIPTION	DESCRIPTION
21_					Gray Silty CLAY, trace fine Sand,	GLACIAL MARINE
22_					soft, wet, CL	
23						
24_						
25_						
26_					Sv = 760 psf, 65 psf remold	
27_					Sv = 825 psf, 100 psf remold	
28_	S-7	24/24	27 - 29	l	Gray Silty CLAY, trace fine Sand, soft, wet, CL	PP < 500 psf wc = 37.6%
29_				WOH 1		
30_						
31_					Sv = 870 psf, 10 psf remold	
32_					Unable to advance vane, sand layer	31'
33					Rotary wash advance, sandy soil to 34.7'	
34_						
35_					End of exploration at 35.3', rotary wash	34.7'
36_				r# 199	into bedrock from 34,7' to 35.3'	BEDROCK
37_						
38_						
39					·	
40						
41						
42]						
- 55				****	•	
			10 in 12 in 15			

SUMMIT				SOIL I	BORING	LOG	Boring #; P-1		
1,	GEOE	NGINEERIN		ES	Project: Little Falls Mill Renovation			Project #: 17417	
		434 Cony	Road			Depot Street		Sheet: 1 of 1	- 1
<u> </u>	- بينين	Augusta, Mair				South Windhar		Prep by: CWC	
Drilling		Nothern Test Bo	oring		Ground Elevation:		oproximately 98 fl		
Forema Summi		Mike Nadeau Craig Coolidge,	DT	4 2 4 10	Reference: Date started:		aphy by Oak Eng Date Comp:	10/1/2008	
		METHOD	SAMPL	FR	Date started.	GROUND WA		10/1/2006	
Vehicle			Type: 24" S		Date	Depth	Elevation	Comments	
Model:	Diedri	ch D-50	Hammer: 140		10/1/2008	N/E	N/E	None Encountered	
Method	: 2-1/4		Falt: 30"						
Depth			E DATA	Blows		ENGINEERING		GEOLOGIC	
(ft.)	No.	Pen/Rec (in.)	Depth (ft)	Blows	Dark brown SILT	DESCRIPTION		DESCRIPTION TOPSOIL	
,					Olive brown and			5"	
1-	 	<u> </u>		 	trace fine Sand, fi		LAI	GLACIAL MARINE	
2	40.00			 	mace time Sand, in	ini, moisi, Cl		OLACIAL MARINE	1
					- Landers				
3					i			1	Į
	— — —		- I the state of	 	1				1
4				 	1				1
-				-	End of exploration	n at 4.2', refusa	j	4.2'	$\neg \neg$
5						***		BEDROCK	
1 7			L]				
6]				
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7_			A 1.7.						
8_									I
9_				<u> </u>					
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11			<u> </u>	ļ				ì	
-		**************************************		 					Į
12					L. Company			1	j
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4.0									[
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20				 	·				1
20_			7 - 1011 W T 1 1 W					1	1
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21_			 	 -					
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SUMMIT					SOIL BORIN	G LOG	Boring #: P-2
	GEOENGINEERING SERVICES		Project: Little Fall	s Mill Renovation	Project #: 17417		
		434 Cony .	Road		Depot Str	eet	Sheet: 1 of 1
Dellin	Car	Augusta, Mair Nothern Test Bo		· · · · · · · · · · · · · · · · · · ·	Ground Elevation:	ndham, Maine Approximately 110	Prep by: CWC
Drilling Forema		Mike Nadeau	orang			opography by Oak Eng	
Summi		Craig Coolidge,	P.E.	.,,	Date started: 10/1/20	08 Date Comp:	10/1/2008
		METHOD	SAMPL			D WATER DEPTH	
	: ATV		Type: 24" S:		Date Depti		Comments
Model: Method		ch D-50 " SSA	Hammer: 140 Fall: 30"	JLB	10/1/2008 N/E	N/E	None Encountered
Depth			E DATA		ENGINEE	RING	GEOLOGIC
(ft.)	No.	Pen/Rec (in.)	Depth (ft)	Blows	DESCRIP		DESCRIPTION
					Dark brown SILT, rootlets,		TOPSOIL
1_					Dark brown SAND, little to		4"
2			****		Silt, and Organics, loose, da		FILL
- "					Occasional brick, ash, and/o	or coal debris	
3	 			ļ	Occasional cobbles and deb	eris	
-					The second second section of the second seco		
4							
5_							
				:			
6_							
7							
l '-		1.18-10-1			Denser drilling at 7 ^t		
8	<u> </u>		· · · · · · · · · · · · · · · · · · ·		Denger drining at 7		
~					*-		
9					End of exploration at 4.2', re	efusal	8.5'
					•		BEDROCK
10							:
11_							·
12							
14-							•
13							
14_							
15_							
1,							
16_							
17).		
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18			************				
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AY.							
21_			4.44		*		
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44							
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APPENDIX C LABORATORY RESULTS

434 Cony Road Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094

ONE DIMENSIONAL CONSOLIDATION - ASTM D2435

PROJECT NAME:

INTENDED USE:

Little Falls Mill Renovation

CLIENT:

Resurgence Engineering

SOIL DESCRIPTION: Silty Clay

Soil Investigation

PROJECT #17417

SAMPLE #:UT-2

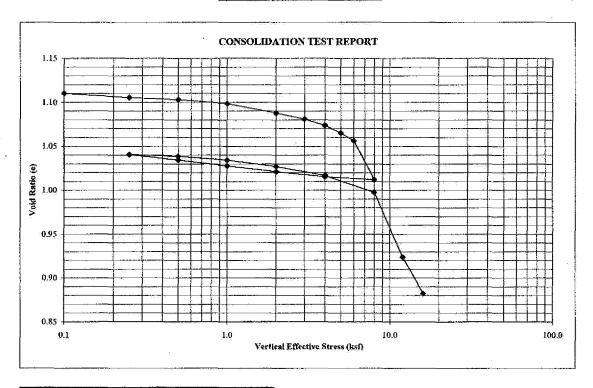
DATE: 10/16/2008

SOURCE: Boring B-5, UT-2, 17' to 19'

TECH: Crais

Craig Coolidge, P.E.

CONSOLIDATION TEST RESULTS



Load (ksf)	Void Ratio (e)	Cv (ft^2/day)
0.25	1.105	3.50
0.50	1.103	2.81
1.00	1.099	2.22
2.00	1.088	1.65
3,00	1.081	1.51
4.00	1.074	1.30
5.00	1.065	0.85
6,00	1.056	0.64
8.00	1.012	0.36
4.00	1.015	2.36
2.00	1.021	1.56
1.00	1,028	1.13
0.50	1.034	0.79
0.25	1.041	0,61
0.50	1,039	1.12
1.00	1.034	1.31
2.00	1.027	1.20
4.00	1.017	1.37
8.00	0.997	1.06
12.00	0.924	0.40
16.00	0.882	0.40

Preconsolidation Pressure (P'c):	4.9	ksf
Compression Index (Cc):	0.41	
Recompression Index (Cr):	0.03	
Initial Void Ratio:	1.110	
Specific Gravity:	2.76	_
Natural Moisture Content:	37.9	%
Natural Degree of Saturation:	86.4	%
Dry Unit Weight:	81.6	pef

Torvane Shear Strength: 575 psf

Liquid Limit (LL): 38
Plastic Index (PI): 16

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094



ATTERBERG LIMIT TEST - ASTM D4318

PROJECT NAME:

Little Falls Mill

PROJECT#:

17417

CLIENT: SOIL DESCRIPTION: Resurgence Engineering Lean Clay, CL SAMPLE #:

UT-2

INTENDED USE:

Investigation

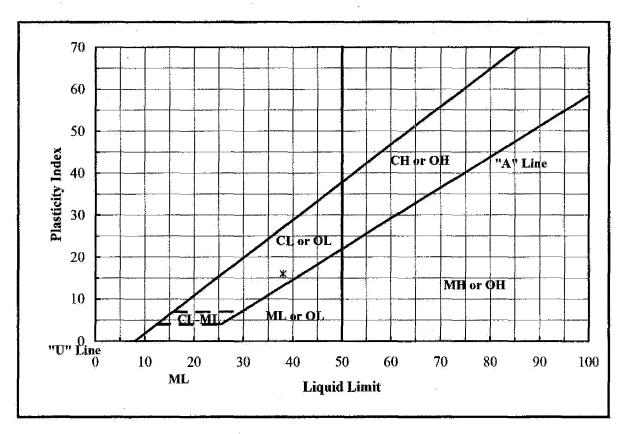
DATE: SOURCE: 39742 B-5

TECHNICIAN:

M. Sullivan

DATA

Source	Depth	LL	PL	PΙ	Classification
B-5	17' to 19'	38	22	16	Lean Clay, CL
		· · · · · · · · · · · · · · · · · · ·			
·//		MT/New -	 _,		
			Access of the Control		Control of the contro



Notes:

Reviewed: Darrell A. Gilman, CMT Manager

Sent:

10/23/2008

434 Cony Road, Augusta, Maine 04330 Phone: (207) 621-8334 Fax: (207) 626-9094



GRAIN SIZE ANALYSIS - ASTM D422

PROJECT NAME:

Little Falls Mill

PROJECT#;

17417

CLIENT:

Resurgence Engineering

SAMPLE #:

UT-2

SOIL DESCRIP:

M. Sullivan

DATE:

27-Oct

INTENDED USE:

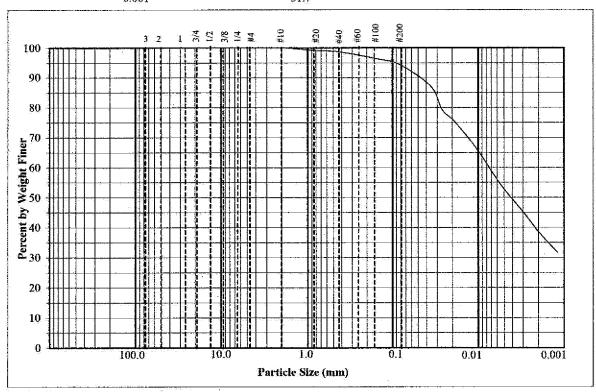
Investigation

SOURCE:

B-5, 17' - 19'

DATA

PARTICI	E SIZE mm	% BY WT FINER
38.10	(1-1/2 in)	100.0
25,40	(1 in)	100.0
19.05	(3/4 in)	100.0
12.70	(1/2 in)	100.0
9.53	(3/8 in)	100.0
6.35	(1/4 in)	100.0
4.75	(No. 4)	100.0
2.00	(No. 10)	0.001
0.85	(No. 20)	99.2
0.43	(No. 40)	98.7
0.15	(No. 100)	96.3
0.08	(No. 200)	94.2
0.035		86.9
0.026		79.2
0.019		75.4
0.010		66.2
0.006		54.4
0.003		44.7
0.002		38.6
0.001		31.7



REMARKS:

Reviewed: Darrell Gilman, CMT Manager

Sent:

10/28/08

VIL_RESP01698

434 Cony Road Augusta, Maine Phone: (207) 621-8334 Fax: (207) 626-9094

Laboratory Determination of Water (Moisture) Content of Soil ASTM D2216

PROJECT NAME:

Little Falls Mill Renovation

CLIENT:

Resurgence Engineering

SOIL DESCRIP: INTENDED USE: Silty Clay

Soil Investigation

PROJECT #:

SAMPLE #:

17417

DATE:

Various 10/6/08

SOURCE:

Test Borings

TECH:

Craig Coolidge, P.E.

Sample Number	Sample Source	Percent Moisture
B-3, S-5	B-3, 10' - 12'	41.9
B-3, S-6	B-3, 14' - 16'	34.6
B-3, UT-1	B-3, 16' - 18'	28.0
B-4, S-2	B-4, 5' - 7'	23.2
B-4, S-3	B-4, 10' - 12'	56.1
B-5, S-6	B-5, 15' - 17'	45.3
B-5, S-7	B-5, 27' - 29'	37.6

REMARKS:

APPENDIX A

Certification

Certification

The undersigned, as owner of the property where the cleanup site is located and the party conducting the cleanup, hereby certifies that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file and available for EPA inspection at:

Ransom Environmental Consultants, Inc. 400 Commercial Street, Suite 404 Portland, Maine 04101

Signature

Title

Date

VIL_RESP01702

TABLES

TABLE 1: PCB Sample Results Interior of Keddy Mill South Windham, Maine

	Sample Identifier	SS5	SS6	SS7	SS8	SS9	\$\$10	SS101A	SS101B	SS102	SS103	SS104
	Sample Type	Soil/Solids	Soil/Solids	Sludge/Solids	Sludge/Solids	Sludge/Solids	Sludge/Solids	Soll/Solids	Soil/Solids	Soil/Solids	Soil/Solids	Sod/Solids
	Location	Basement, Area of Broken Concrete	Basement, Floor Sump, Melt Building	1 st floor, Maintenance Shop	1 st floor, Maintenance Shop	1 st floor, Maintenance Shop	1 st floor, Melt Building	Basement, Floor Sump (split sample)	Basement, Floor Sump (split sample)	Basement, Dirt/Debris on Floor, Melt Building	Basement, Dirt/Debris on Floor, Melt Building	Basement, Dirt/Debris on Floor, Melt Building
	Result Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	*											
PCBs	Collection Date	25-Nov-03	25-Nov-03	25-Nov-03	25-Nov-03	25-Nov-03	25-Nov-03	13-Jan-04	13-Jan-04	13-Jan-04	13-Jan-04	13-Jan-04
Arocior-1016	· ,	< 39.2	< 48.2	< 33 1	< 54.6	3.2	< 43 9	<4.41	<31	<6.68	<29 8	<29 9
Aroctor-1221	,	< 39.2	< 48.2	< 33 1	< 54 6	< 47.6	< 43 9	<4 41	<31	<6.68		
Aroclor-1232		< 39.2	< 48 2	< 33 1	< 54.6			<4.41	<31	<6.68	<29 8	<29 9
Arocfor-1242	,	< 39.2	< 48 2	< 33.1	< 54.6	< 47.6	< 43.9	<4.41	<31	<6.68	<29 8	<29 9
Aroclor-1248	, ,	< 39.2	< 48 2	< 33.1	< 54.6	MANUFACTURE DESCRIPTION OF THE PROPERTY OF THE			<31	<6 68	<29.8	<29 9
Aroclor-1254		45	120	13	11	10		262	570	71.1	138	100
Aroclor-1260		32	54	< 33.1	< 54.6	3.5	< 43.9	<4.41	<31	<6 68	<29.8	<29 9
PCB Total		77	174	13	11	16.7	5.1	262	570	71.1	138	100

Notes.

NA = Not available

µg = microgram

mg/kg = miiligram per killigram

PCBs = Polychlonnated Biphenyls

J = Estimated value

TABLE 1: PCB Sample Results Interior of Keddy Mill South Windham, Maine

	Sample Identifier	IW-01	IW-02	IW-03	IWD-01	IWD-02	IS-01	IS-02	IS-03	IS-04	IS-05	IS-06
	Sample Type	Wipe	Wipe	Wipe	Wood	Wood	Sludge/ Solids	Sludge/ Solids	Oily Material	Oily Material	Sub-Slab Sample	Sludge/ Solids
	Location	2 nd floor, Stockroom	2 nd floor, Office Area	1 st floor Hall Outside Maintenance Shop	1 st floor, Melt Building	Basement, Generator Room	1 st floor, Storage & Manufacturing	1 st floor, Storage & Manufacturing	Basement, Melt Building Wall	Basement, Melt Building, Beneath Pipe Cutoff	Ground floor, Storage & Manufacturing	Ground floor, Storage & Manufacturing
	Result Units	hã	μg	μg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
PCBs	Collection Date	27-Oct-05	27-Oct-05	27-Oct-05	27-Oct-05	2-Nov-05	27-Oct-05	27-Oct-05	27-Oct-05	27-Oct-05	27-Oct-05	27-Oct-05
Arcclor-1016		<5.0	<50	<5.0	<2.2	<7.0	<4.5	<41	<1.0	<11	<3.9	<5.3
Aroclor-1221	<i>'</i> • • • •	<5.0	<50			<7.0	<4.5	<41	<1.0	<11	<3.9	<53
Arcclor-1232		<5.0	<5.0			<70	<4.5	<41	<1.0	<1,1	<3.9	<5.3
Araclor-1242		3 J	<5.0			71	<4.5	<41	3.6	1.7	<3.9	<5.3
Araclor-1248	_ ^	<5.0	<5.0			<7.0	<4.5		<1.0	<1.1	<3.9	35
Aroclor-1254]	24	<5.0	<5.0	12	34	89	320	3.2	8.5	66	62
Aroclor-1260] ;	17	<5.0	<5.0	7.9	<7.0	<4.5	<41	<1.0		31	27
PCB Total		44	<5.0	<5.0	36.9	105	89	320	6.8	10.2	97	124

Notes:

NA = Not available

µg = microgram

mg/kg = milligram per killigram

PCBs = Polychlorinated Biphenyls

J = Estimated value

TABLE 1: PCB Sample Results Interior of Keddy Mill South Windham, Maine

	Sample Identifier	IS-07	IS-08	IS-09	IS-10	IS-11	IS-13	IS-14	IS-15	IS-16	IS-17	IS-18	Equip. Blank
	ş	Sludge/	Sludge/	Sluddge/	Sludge/	Sludge/	Sludge/	Sludge/	Oily	Oily	Oily	Oily Materials	Aqueous
	Sample Type	Solids	Solids	Solids	Solids	Solids	Solids	Solids	Materials	Matenals	Materials :		
	Location	Ground floor,	Ground	Basement,	1 st floor,	1 st floor,	Duplicate of	1 st floor, Melt	Basement,	1st Floor,	1st Floor,	Ground floor,	Rinsate
	· ·	Press	floor, Press	adjacent to	Melt	Melt	IS-09	Building	Furnace Wall	Melt Building	Melt Building	Storage &	Blank
	* * *	Building	Building Pit	Main Stairs	Building	Building						Manufacturing	
	Result Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	μg/l
PCBs	Collection Date	27-Oct-05	27-Oct-05	2-Nov-05	27-Oct-05	2-Nov-05	2-Nov-05	2-Nov-05	2-Jan-06	2-Jan-06	2-Jan-06	2-Jan-06	27-Oct-05
Aroclor-1016		<1.0	<1.0	<10	<6.0	<3.4	<1.0	<5.2	<26	<63	<4.9	<50	<10
Aroclor-1221] -	<1.0	<1.0	<1.0	<6.0	<3.4	<1.0	<5.2	<26	<6.3	<4.9	<5.0	<10
Aroclor-1232]	<1.0	<1.0	<1.0	<6.0	<3.4	<1.0	<5.2	<26	<6.3	<4.9	<5.0	<1.0
Aroclor-1242		<1.0	<1.0	<1.0		<34		<5.2	<26	<6.3	5.1	<5.0	<10
Aroclor-1248	,	<1.0	<1.0	2.2	<6.0	15		<5.2	240	110	<4.9	<5.0	<10
Aroclor-1254		1.8	<1.0	3.6	41	39		27	<26	<6.3	<4.9	<5.0	<1.0
Aroclor-1260]	<1.0	<1.0	<1.0	<6.0	15			<26	<6.3	<49	<5.0	<1.0
PCB Total		1.8	<1.0	5.8	41	69	4.9	27	240	110	5.1	<5.0	<1.0

Notes:

NA = Not available

yg = microgram

ing/kg = milligram per killigram

PCBs = Polychlorinated Biphenyls

J = Estimated value



17 MAIN STREET • SOUTH PORTLAND, ME 04106 (207) 799-8111 • FAX (207) 799-0349

November 4, 2002

Mr. Todd Coffin Jacques Whitford Company Inc. 75 Pearl Street Portland, Maine 04101

Dear Mr. Coffin,

Clean Harbors Environmental Services, Inc. is pleased to submit the following quotation for the pumping, transportation and disposal of fuel oils and waste oils contained in the 3 x 275 gallon tanks at 7 Depot Street, Windham, Maine. This quotation is based on the oil meeting Maine Waste Oil Parameters (MWOPS). We will supply one vacuum truck with operator and one field tech and transport the oil for disposal at our oil recycling facility at Rumery Road in South Portland, Maine.

Disposal:

\$.50/gallon

Estimate 600 gallons

\$300.00

Transportation and labor

\$650.00

In the event that the oil is off spec for disposal at Rumery Road there will be additional charges for transportation and disposal of that material.

Sincerely

John Curtis

Technical Specialist



November 4, 2002

Mr. Todd Coffin
Jacques Whitford Company Inc.
75 Pearl Street
Portland, Maine 04101

Dear Mr. Coffin,

Clean Harbors Environmental Services, Inc. is pleased to submit the following quotation for field sampling of transformers and various other electrical devices at the former Windham Iron Works facility in South Windham, Maine. I have also included unit rates for disposal of siad equipment based on PCB concentration. Pending results of sampling and a more intensive inspection of the transpormers and equipment, CHES could furnish a quote to complete the removal and disposal of the equipment.

CHES would supply two Field Chemists with associated sampling equipment to grab oil samples from the transformers. Samples would be analyzed at the CHES laboratory in Braintree, Massachusetts. In addition, pertinent "nameplate" information would be collected. Typically these nameplates include manufacturer, weight, gallonage, date in service, etc. This data would be used to define the disposal estimate and often can confirm the prescence of PCBs (for capacitors and other misc. equipment). It is estimated that sampling and data collection would require two days to complete. A report would be generated detailing the inventory and corresponding analytical results.

PRICING - Sampling and Data Collection......\$1900.00

PCB analyses (oil or wipe).....\$75.00/each

Please feel free to call me with any questions regarding this quote.

Sincerely.

Dick Grimm Field Specialist



Unit Pricing

Transportation - Flatbed load - Direct Ship - \$3250.00/each

Transformer pricing <50 ppm PCB \$.12 per pound

<500 ppm PCB \$.21 per pound

>500 ppm PCB \$.58 per pound

Capacitors \$1.46 per pound for incineration

Plus applicable state tax and opec charges.



Prior to packaging and removing the cylinders, our field chemists will inspect them for integrity and transportability. This evaluation will include a leak test to ensure the cylinders are safe to handle and transport. The cylinders must have their original manufactures label or a surcharge may be applied.

The pricing for the bulbs and ballasts in this quote represent packaging and disposal only. These will need to be removed and staged in one central area to perform this phase. Clean Harbors will provide a quote for labor and equipment for the removal of this material upon request.

We would like to emphasize that Clean Harbors is a full service company, and our corporate philosophy is to provide you with a turnkey operation that is dependable, cost effective, and environmentally responsible. Our service extends beyond each individual pickup to help you with the wide range of hazardous waste management problems.

We are very proud of our excellent compliance record. Clean Harbors ships only to facilities that pass our compliance audit, and our transportation fleet is inspected daily. All field personnel receive 40 hours of OSHA training and 24 hours of RCRA training. In addition, our lab pack chemists receive a 40-hour lab pack-training course.

Our drum tracking system can trace your waste from cradle to grave. Certificates of disposal will be supplied upon request.

Your waste will be packaged in accordance with compatibility, reactivity and our disposal facility packing requirements, maximizing the amount of allowable waste packed per container.

Material subject to land disposal prohibitions of 40 CFR, Part 268 will be incinerated or treated depending on disposal facility requirements. Material not subject to these prohibitions may be shipped to a secure chemical landfill.

Clean Harbors guarantees to hold these prices firm for 30 days. Clean Harbors' standard credit terms are net 15 days.

Applicable sales tax and state regulatory fees are not included in quoted prices but will be applied to your invoice. A temporary OPEC/insurance surcharge will be applied at 3% of the total invoice.

Standard labor rates apply for 8 hours on-site time per chemist. Additional on-site labors over the 8 hours will be bid at 1.5 times the standard rate unless otherwise quoted. New profiles for drummed wastes completed on-site will be billed at \$75.00 per profile unless otherwise quoted.

The prices quoted are based upon the information provided and assumptions made as to the materials and labor necessary to package, transport and dispose of the waste. Final billing will be based upon the unit rates for those items actually used in performance of the



services. In the event the unit price of an item required for proper performance of service is not listed in this quotation, the item will be invoiced at a proportionate rate to the items quoted.

This letter will serve to inform you that Clean Harbors' facilities have the proper permits and licenses to accept those wastes specified above.

If you have any questions concerning this quotation or would like to schedule a pick up, please call me at (800) 444-4244 or the number listed below. Please fax a signed copy of this quotation with a Purchase Order to the fax number listed below.

Sincerely,

Íohn A. Curtis

CleanPack Specialist

(800) 526-9191

CUSTOMER SIGNATURE

DATE

P.O. #

Quote #218641

Please fax acceptance to (207)-799-0349



1-Nov-02

Mr. Todd Coffin Jaques Whitford Pearl Street Portland, ME 04101

Quote # 218641

Dear Mr. Coffin:

Thank you for considering Clean Harbors for your chemical waste disposal needs. Based upon the information gathered, we are pleased to offer you the following estimate.

1 x 55	gallon drum of corrosive wastes for in @ \$500.00 ea. Uknown drum	cineration (CCRC)	\$500.00	
500	pounds of universal waste fluorescent @ \$1.00 lb., \$50.00 min	light bulbs (CFL1)	\$500.00	
1 x 30	gallon drum of non-hazardous organic @ \$100.00 ea. Refractory dust	solids for landfill (CNO)	\$100.00	
1 x	flex bin of non-hazardous organic soli @ \$400.00 ea. Refractory dust	ds for landfill (CNO)	\$400.00	
6 x 55	gallon drums of empty drums @ \$35.00 ea.	(D23)	\$210.00	
1 x 55	gallon drum of liquid for fuels blendin @ \$100.00 ea. Waste oil	rg (FB1)	\$100.00	
1 x 5	gallon pail of lab packs for aqueous tre @ \$85.00 ea. Sulfuric Acid	eatment	\$85.00	
1 x 5	gallon pail of ni-cad battery for reclam @ \$85.00 ea.	ation	\$85.00	
2 x	pallet of lead acid batteries for reclama @ \$250.00 ea.	ation	\$500.00	
1 x 5	gallon pail of lab packs for incineration (a) \$125.00 ea. Photo Chemicals	n	\$125.00	



	The state of the s	
1 x 16	gallon drum of lab packs for incineration @ \$200.00 ea. Epoxy Hardeners	\$200.00
1 x 5	gallon pail of mercury for stabilization @ \$125.00 ea. Condensate tank switch	\$125.00
3 x 55	gallon drums of pcb's for secure chemical landfill @ \$375.00 ea. removed ballasts	\$1,125.00
1 x	large cylinder of propane for recycling @ \$250.00 ea.	\$250.00
1 x	medium cylinder of propane for recycling @ \$175.00 ea.	\$175.00
4 x	large cylinder of category 4 compressed gas @ \$175.00 ea. (1 x oxygen, 3 x CO2)	\$700.00
1 x	medium cylinder of category 4 compressed gas @ \$175.00 ea. (Oxygen)	\$175.00
1 x	large cylinder of category 6 compressed gas @ \$725.00 ea. (Acetylene)	\$725.00
1 x	medium cylinder of category 6 compressed gas @ \$465.00 ea. (Acetylene)	\$465.00
1 x 16	gallon drum of lab pack landfill @ \$135.00 ea. Non-Haz coatings	\$135.00
1 x 55	gallon drum of asbestos for secure landfill @ \$250.00 ea. broken asbestos sheet	\$250.00
3 x	flex bin of non-processable paint related material @ \$950.00 ea. Flammable coatings	\$2,850.00
Analys	is: 1 x tclp @ \$500.00 estimate for unknown drum	\$500.00
Labor:	12 hours/2 chemists @ \$55.00 hour	\$1,320.00
Materia	als: 30 x fluorescent bulb boxes @ \$25.00 ea. 3 x 55 gal steel drum @ \$46.50 ea. 4 x cubic yard box @ \$125.00 ea.	\$750.00 \$139.50 \$500.00
Additio	onal Materials	\$400.00



Transportation: 1 trip @ \$300.00/trip.

\$300.00

Grand Total:

\$13,689.50

Waste Classification Specifications:

CCRC CORROSIVE INCINERABLES

No metal pieces inside drum

PRIMARY DISPOSAL METHOD: DESTRUCTION INCINERATION

CFL1 MERCURY BULBS FOR RECLAMATION

Less than 5% broken bulbs Intact 4 foot or 8 foot bulbs

Packaged in original bulb boxes or specialty containers

Shrink wrapped to pallets

No free mercury

PRIMARY DISPOSAL METHOD: RECLAMATION

CNO NON RCRA ORGANIC SOLID

Non-pourable at 70°F

No free liquid

Must be able to pass the paint filter test

Must be able to be landfilled

No herbicide, pesticides, or cyanides

Less than 50-ppm PCB's, non-TSCA regulated

PRIMARY DISPOSAL METHOD: SUBTITLE D LANDFILL

D23 EMPTY DRUMS

Must meet RCRA definition of empty

Must not have an EPA waste code

Must be non-PCB

Less than 1-inch solids

PRIMARY DISPOSAL METHOD: RECLAMATION

FB1 LIQUIDS FOR FUELS BLENDING

Example: paint thinner, solvents

Less than 4 inches of dispersible sludge

Less than 5% halogens/sulfur

Less than 50 PCB's, non-TSCA regulated

Greater than 10,000 BTU's

No pesticides

No debris

Low viscosity (e.g. thinners)

PRIMARY DISPOSAL METHOD: FUELS BLENDING



FACSIMILE TRANSMITTAL SHEET			
TO:	FKOM:		
Renee Lewis	Ron A. Smalley Jr.		
	(ron@environservices.com)		
AX NUMBER:	DATE:		
	11-06-03		
RE:	TOTAL NO. OF PAGES INCLUDING GOVER:		
	3		

Renee:

I wanted to get back to you in regards to the additional testing for the oil (transformers, capacitors, misc. equipment). The price for this will be \$2,500.00. I will charge you \$1,250.00.

We will also do the lab over-pack of the open transformers while we are on site. I will get back to you on a price for that.

Enclosed I have sent you a copy of a publication I receive daily. Is this your project?

The other copy I have enclosed is for a project in Portland. Do you have a point of contact their? And is their any demolition work? (not too many open spaces on Fredricks Street!)

Talk to you soon. O

GC PA2 N110500345

Senior Housing

South Windham, ME (Cumberland Co.)

CDC# GC PA2 N110500345:

Senior Housing:

LOCATION: South Windham, ME (Cumberland Co.) Route 202 and

Depot Street

ESTIMATED AMOUNT: \$3,000,000

CONTRACTING METHOD: GC Bids (By Invitation Only) or

Negotiated GC Contract

STATUS: Programming Under Way. Bidding possible

Second Quarter 2004.

OWNER: Avesta Housing Development Corp 307 Cumberland Ave, Portland, ME 04101 (207)553-7777 FAX# (207)553-7778

ARCHITECT: Not Yet Selected GEN CONT: Not Yet Selected

USE: 24 units, living areas, kitchens, bathrooms.

Mike Myatt with owner
Industry Type: Residential
Industry Sub Type: Apartments

First Reported Nov 5, 2003 First Published Nov 06, 2003

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Industry Type: Residential

Print Job

Page 1 of 1

GC PA2 N091200371

Logan Place Low Income Housing Portland, ME (Cumberland Co.) CDC# GC PA2 N091200371: Logan Place Low Income Housing: LOCATION: Portland, ME (Cumberland Co.) Fredricks Street ESTIMATED AMOUNT: \$2,000,000 to \$2,500,000 CONTRACTING METHOD: G.C. Bids (By Invitation Only) UPDATE: Schematic Drawings Under Way. Bidding possible December 2003 or January 2004. ARCHITECT: Curtis Walter Stewart Architects 434 Cumberland Avenue, Portland, ME 04101 (207)774-4441 FAX# (207)774-4016 **DEVELOPER:** Avesta Housing Development Corp 307 Cumberland Ave, Portland, ME 04101 (207)553-7777 FAX# (207)553-7778 SIZE: New Construction, 18,000 SF to 20,000 SF, three stories. USE: 30 units, parking. Jay Waterman with developer Ben Walter with architect

Industry Sub Type: Apartments
First Reported Sep 12, 2003

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PretiFlaherty

Environmental Issue Alert

Proposed Visual Impact Regulations May Add Cost and Time to Acquisition of Natural Resources Protection Act Permits

The Maine Department of Environmental Protection has recently introduced a draft regulation, Chapter 315, which proposes to regulate the scenic and aesthetic impacts of projects requiring either a Natural Resources Protection Act ("NRPA") permit or certain wetlands permits.

The rule covers activities requiring either an individual NRPA permit (such as stream fills and activities on mountain areas) or a Tier 2 or 3 wetland permit (generally, projects impacting more than 15,000 square feet of freshwater wetlands or any coastal wetland). Chapter 315 would require applicants for these permits to complete an inventory of all areas identified as "scenic resources" from which the proposed project site could be seen. The regulation defines scenic resources as covering such things as the Appalachian Trail and state hiking trails, outstanding natural and cultural features (an undefined term), properties included or eligible for the

National Register of Historic Places, national and state parks, wildlife refuges and game refuges, and natural resources accessible to the general public (such as rivers, town parks, the ocean and great ponds).

If the Department determines that a project has the potential to have an adverse scenic or aesthetic impact on a scenic resource, it can require the applicant to conduct a visual impact assessment, which must be conducted by a trained design professional.

And the permit can be denied if the Department determines that the project has an unreasonable adverse scenic and aesthetic impact, even if the project has no other practicable

alternative and the applicant has proposed mitigation of the impact.

The factors that go into a determination of whether an unreasonable adverse scenic or aesthetic impact exists are fairly subjective. They include "the quality of the scenic resource", the "expectations of the viewer" and "the diminishment of the public enjoyment and appreciation of the qualities of a scenic resource."

The potential scope of these regulations and the ambiguity of the terms used in the proposed rule are troubling. As drafted, it is very likely that such requirements will cause yet another layer of consultants to become involved in projects that trigger these proposed requirements. Perhaps even more important is that it will open upon the scope of permit challenges to an even broader range of "interested parties" that may be deemed to have standing to object to any particular permit.

A public hearing to receive comments on the regulation has been scheduled for March 20th at 1:30 p.m. before the Board of Environmental Protection in Augusta. The deadline for written comments on the draft regulation is April 4, 2003.

For more information on these draft regulations, contact Deirdre O'Callaghan at 791-3000 or Virginia Davis at 623-5300.

Preti Flaherty Beliveau Pachios & Haley ⊔c

Portland

Augusta

Bath

Concord www.preti.com



Jacques Whitford Company, Inc.

75 Pearl Street, Suite 410, Portland, Maine, U.S.A. 04101 Tel 207 761 7790 Fax 207 761 7631

Consulting Engineers Environmental Scientists Risk Consultants

World Wide Web: www.jacqueswhitford.com E-mail: jnfc@jacqueswhitford.com

Maine • New Harmshire • Massachusetts • Connecticut • Florida • Rhode Island • Pennsylvania • New York • Trinidad • Russia • Argentina • Brunei
Nova Scotia • New Brunswick • Prince Edward Island • Newfoundland & Labrador • Quebec • Ontario • Saskatchewan • Alberta • British Columbia • Northwest Territories

October 13, 2003

Ms. Renee J. Lewis 50 Monument Square, 2nd Floor Portland, Maine 04101

RE: PCB Testing and Asbestos Survey
7 Depot Street, Windham, Maine

Jacques Whitford Project No. mep03102

Dear Ms. Lewis:

Jacques Whitford Company, Inc. (Jacques Whitford) is pleased to provide this scope of work and budget for PCB testing and an asbestos survey at the 7 Depot Street facility in Windham, Maine. As you are aware, investigation at the site in late summer by Jacques Whitford identified PCBs in soils above regulatory guidelines. Additional testing of PCBs in site soils is required to better delineate the extent of PCB-impacted areas. Oil stained concrete and wood flooring was also observed in several former transformer areas inside the former mill building. Testing of these materials for PCBs is recommended for disposal characterization. The presence of likely asbestos-containing materials necessitates an asbestos survey prior to building demolition.

Scope of Work

- 1. Collect up to 12 soil samples for PCB testing from up to three areas where PCBs were previously detected at the site. The samples will be collected using a hand auger decontaminated between exploration location. Samples will be collected to better delineate the area extent and depth of PCB impact in site soils.
 - PCBs were detected inside the building where a hole in the concrete floor apparently had been cut to allow drainage. Coring through the concrete floor will be required to collect additional soils for PCB testing. We have assumed a standard concrete coring bit/drill will be adequate for the task. If the concrete contains metal re-enforcement, different methods of access at higher cost may be required.
- 2. Collect up to 12 samples of interior building materials, primarily concrete and wood . flooring for PCB testing. Representative samples will be collected in former transformer or hydraulic equipment storage areas where oil stains are observed. Samples of concrete or wood dust/chips will be obtained using a drill and appropriate coring bits.



VIL_RESP01720

- 3. Contract with ESN North Atlantic to provide a mobile lab for PCB testing services. Test up to 12 samples of soil and 12 samples of building materials for PCBs.
- 4. A survey of potential asbestos-containing materials in the buildings by Jacques Whitford's Maine-certified asbestos inspectors. This information will be necessary for abatement of asbestos prior to building demolition. Our budget includes up to 50 samples of building materials for asbestos characterization. Our proposal does not include asbestos abatement.
- 5. The findings of the supplemental PCB testing will be incorporated into our pending site investigation report. A separate report will be prepared with the findings of the asbestos survey.

Schedule and Budget

We understand you seek completion of the work detailed herein as soon as feasible, and we are prepared to begin work as soon as authorized. Our budget for the recommended scope of work is broken down as follows:

Jacques	Whitford Labor \$3,000
Jacques	Whitford Expenses 500
Subcont	ract Mobile Laboratory 2,000
Asbesto	s testing 500

Budget estimate \$6,000

Depending on the findings of the proposed investigation, additional exploration and chemical testing may be warranted. For example, if PCB contaminated concrete or wood flooring is identified, testing of soils beneath the flooring may be recommended. You will be notified if additional testing is recommended, and if possible, the mobile lab could be used for follow-up testing if approved by you.

Jacques Whitford will invoice on a time and expenses basis with a not-to-exceed amount of \$6,000 without your authorization. If you are in agreement with the proposed work, budget and the attached General Contract Terms and Conditions, please sign below and return one copy to us. Thank you for considering Jacques Whitford for this work.

Sincerely,

Jacques Whitford Company, Inc.

D. Todd Coffin, M.S., C.G.

Senior Environmental Specialist





October 13, 2003
Page 3 of 3

Approved by:

Renee J. Lewis

Date

Encosure: Jacques Whitford Standard Terms and Conditions

mep03102/prop 10 13 03

Ms. Renee J. Lewis





JACQUES WHITFORD STANDARD TERMS AND CONDITIONS

The terms and conditions set forth herein (these "Terms and Conditions") have been attached to and are part of a written proposal entitled "Proposal for Supplemental Site Investigation, 7 Depot Street, Windham, Maine." (the "Proposal") dated July 14, 2003 and submitted by Jacques Whitford, Inc. ("Jacques Whitford") to Renee J. Lewis (the "Client") which Proposal sets forth certain services to be undertaken by Jacques Whitford for the Client (the "Services"). The Proposal (including these Terms and Conditions), when accepted by the Client, shall constitute a binding agreement between the Client and Jacques Whitford. As used herein, the term "Agreement" shall mean the Proposal and these Terms and Conditions, as so accepted. The Client, and Jacques Whitford hereby agree as follows:

1. Services; Payment

Jacques Whitford agrees to perform the Services as set forth in the Proposal, subject to the Terms and Conditions stated herein. Jacques Whitford shall be compensated for the Services in the lump sum amount set forth in the Proposal or in accordance herewith. For time and material charges, labor charge rates will be in accordance with the prevailing Schedule of Fees and will be revised on January 1 of each year. The Client shall designate in writing a person to act as the Client's representative with respect to the Services. Such person shall have complete authority to transmit instructions, receive information, and interpret and define the Client's policies and decisions with respect to the Services.

2. Expenses for Time and Material Charges

- Reimbursable Expenses. Direct non-salary expenses will be billed at cost. This will include:
 - Transportation and living expenses incurred for assignments outside of the Jacques Whitford office area, including use of rental cars.
 - II. FAXs (i.e., outside FAX use in hotel)
 - III. Shipping charges for plans, equipment, etc.
 - Outside reproduction of drawings, reports, and correspondence.
 - V. Purchase of dedicated special equipment or rental for project use.

Automobile expenses for personal or company vehicles will be charged at \$0.36 per mile plus toll charges, for travel from a Jacques Whitford office to the project and return, and for travel at the job in conduct of work.

- b. <u>Subcontractor Charges</u>. Jacques Whitford prefers that all associated contractors bill directly. However, in the event that subcontracting is chosen, a 10 percent handling fee will be added to the cost for services such as surveying, drilling, heavy equipment operation, laboratory analyses, drafting, typing, and computing services provided by outside contract personnel.
- c. <u>In-House Charges</u>. When appropriate, Jacques Whitford will utilize its in-house facilities to complete the Services. This includes equipment for performing geophysical, chemical, and hydrogeologic measurements, sampling, etc., general communication equipment (FAX, telephone, Internet, etc.), and equipment/supplies for binding/reproductions. These items will be charged at a unit rate or as a percentage of the labor fees in accordance with the prevailing Schedule of Fees.
- d. Services of Others. On occasion, Jacques Whitford engages the specialized services of individual consultants or other companies to participate in a project. When considered necessary, these firms or other consultants will be used with client approval, and their costs plus a 10 percent service charge must be paid prior to release of the consultant's work, unless otherwise agreed.

e. <u>Invoices</u>. Invoices will be submitted once a month for services performed and expenses incurred during the previous month. Payment will be due upon receipt. Interest will be added to accounts in arrears net 30 days of invoice date at the rate of one and one-half (1 and 1/2) percent per month (18 percent per annum) or the maximum rate allowed by law, whichever is less, of the outstanding balance. The Client will reimburse Jacques Whitford for all reasonable attorney's fees, court costs, and other costs incurred to effect or ensure collection from the Client. Any payments received by Jacques Whitford shall be applied to outstanding invoices in whatever order of priority Jacques Whitford deems appropriate.

3. On-Site Services During Project Completion

When Jacques Whitford's Services are provided on the job site, it is understood that the owner and/or contractors other than those retained directly by Jacques Whitford will be solely and completely responsible for working conditions on the job site, including safety of all persons and property during the performance of the work, and compliance with OSHA regulations, and that these requirements will apply continuously and not be limited to normal working hours. Any monitoring of the contractor's performance conducted by Jacques Whitford personnel does not include review of the adequacy of the contractor's safety measures in, on, or near the work site. Additionally, Jacques Whitford takes no responsibility for budgetary or schedule matters associated with the contractor's performance other than for contractors retained directly by Jacques Whitford, nor does Jacques Whitford take any responsibility for the adequacy and reliability of any procedure or analyses performed by the contractor.

4. Access

The Client will furnish Jacques Whitford with access and right of entry onto any premises that are subject of the Proposal, and if such premises are not owned by the Client, the Client represents and warrants that it has full permission to allow Jacques Whitford onto the premises. Such access, right of entry or permission shall be sufficient to enable the performance by Jacques Whitford of the Services. Jacques Whitford will take reasonable precautions to minimize damage to the land from its operations, but Jacques Whitford has not included in its fee the cost of the repair of damage that may result from its operations. If Jacques Whitford is required to restore the land to its former condition, this will be accomplished and the cost will be added to Jacques Whitford's fee.

5. Reliance on Client

The Client shall be obligated to furnish to Jacques Whitford all existing studies, reports and other available data, and work done by the Client or by other contractors retained by the Client pertinent to the Services (such information, materials and work are referred to herein collectively as the "Client Work"). Jacques Whitford shall be entitled to rely upon all such information and work in performing the Services.

During the course of this work, Jacques Whitford may also rely on certain information provided by state and local officials and other parties and on information contained in the files of state and local agencies available to Jacques Whitford at the time of the study (such information is referred to herein as the "Official Information"). Jacques Whitford shall not attempt to independently verify, and shall have no responsibility for, the accuracy, completeness, workmanship or any other aspect of the Official Information and the Client Information, except where explicitly a part of the Proposal.



The Client agrees to indemnify Jacques Whitford, its present and future officers, directors, owners, agents, employees, successors and assigns (an "Indemnitee") from any and all liability, loss or damage which an Indemnitee is legally obligated to pay, including, without limitation, liability, loss or damage arising from bodily injury, illness, death, property damage or any other source and reasonable attorneys' fees and investigative and discovery costs, resulting from or relating to the Client Work and Official Information.

6. Underground Structures

It is the responsibility of the Client to provide Jacques Whitford with assistance in locating underground structures and utilities in the vicinity of any construction, exploration or investigation. If neither party can confirm the location, the Client agrees to accept all liabilities and costs associated with the repair, replacement or restoration of any damage caused by Jacques Whitford or its subcontractor(s) in the performance of the Services, Jacques Whitford shall also rely upon third party sources in order to determine the existence and location of any underground structures and utilities of any kind. The Client hereby acknowledges that Jacques Whitford may rely on such third party advice, so long as such third party is a reasonable source for such information, without any requirement that Jacques Whitford shall make independent evaluation or investigation of such underground structures and utilities. In the event that the information supplied by third parties is incorrect, the Client acknowledges that Jacques Whitford shall not be responsible for any damage or any consequential damage done to any such subsurface structures or utilities.

7. Compliance with Recommendations

In the course of the performance of the Services, the Client and Jacques Whitford agree that Jacques Whitford may from time to time render advice and make recommendations consistent with its professional judgment relating to any matter relevant to the performance of the Services, which matter may or may not be within the scope of such Services. If the Client fails to abide by any such advice or recommendation, Jacques Whitford shall have the right, in its discretion, either to renegotiate the terms of this Agreement and the scope of its Services or to immediately terminate the Agreement without any further recourse by the Client to Jacques Whitford, in which case the payment provisions of section 17 below shall determine the amounts to be paid for the Services provided by Jacques Whitford to such time of termination.

8. Samples

If it is necessary for the performance of the Services for Jacques Whitford or any subcontractor to take samples of any sort, including, without limitations, samples of soil, rock, or water, such samples shall be the property of Jacques Whitford or such subcontractor, until the costs incurred in collecting and delivering such samples has been remitted to Jacques Whitford or such subcontractor, at which time the samples will be delivered to and become the property of the client.

9. Ownership of Documents

All documents which Jacques Whitford prepares, including, without limitation, drawings, estimates, analyses specifications, field notes, and data (including any copies thereof) and all copyrights relating thereto are and remain the property of Jacques Whitford. The Client may, at its expense, obtain a set of reproducible plans or copies of documents, in consideration of which the Client will use them solely in connection with this project, and only upon receiving the advance (written) approval of Jacques Whitford. Jacques Whitford will retain all pertinent records relating to the Services for a period of two (2) years following submission of a report by Jacques Whitford, during which period the records will be made available to the Client at all

reasonable times after full payment of Jacques Whitford fees and expenses and upon obtaining the consent of Jacques Whitford as described above.

10. No Third Party Reliance

All Services are provided solely for the benefit of the Client and not for the benefit of any other party. No party other than the Client shall be entitled to rely on the Services or any information, documents, records, data, interpretations, advice or opinions or other materials given to the Client by Jacques Whitford in the performance of the Services. The Services relate solely to the specific project for which Jacques Whitford has been retained under this Agreement and shall not be used or relied upon by the Client or any third party for any variation or extension of this project, any other project or any other purpose. Any unpermitted use by the Client or any third party shall be at the Client's or such third party's own risk. The Client agrees to indemnify Jacques Whitford, its present and future officers, directors, owners, agents, employees, successors and assigns (an "Indemnitee") from any and all liability, loss or damage which an Indemnitee is legally obligated to pay, including, without limitation, liability, loss or damage arising from bodily injury, illness, death, property damage or any other source and reasonable attorneys' fees and investigative and discovery costs, resulting from or relating to any unpermitted use of the Services or of any information, documents, records, data, interpretations, advice or opinions or other materials given to the Client by Jacques Whitford.

11. Standard of Care; Limitation of Liability

Jacques Whitford agrees to use reasonable care, skill, competence and judgment in the performance of its Services hereunder which are generally consistent with professional standards for scientists and engineers providing similar services at the same time, in the same locale, and under like circumstances.

The Client shall be obligated to promptly report any failure by Jacques Whitford to conform to this warranty in writing to Jacques Whitford within six (6) months after completion of the Services, where upon Jacques Whitford shall at its option, correct such nonconformity or reimburse the Client the price of the nonconforming work provided. This shall constitute the exclusive remedy of the Client under this Agreement. Jacques Whitford and its subcontractor(s) shall in no event be liable to the Client, any successors in interest or any beneficiary or assignee for punitive, consequential, or indirect damages arising out of this Agreement or any breach thereof, whether based upon loss of use or lost profits, revenue or interest, whether or not such loss or damage is based on contract, warranty, negligence, indemnity or otherwise.

12. Disclaimer

THE CLIENT AGREES THAT EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, Jacques Whitford MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND WHATSOEVER, ORAL OR WRITTEN, EXPRESSED OR IMPLIED; AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. ARE HEREBY DISCLAIMED.

13. Disclosure to Authorities

The Client agrees that in the course of the performance of the Services, Jacques Whitford may come upon matters that Jacques Whitford believes, in its professional judgment, are necessary or advisable to disclose to appropriate authorities under federal, state or local law. The Client agrees that Jacques Whitford shall be entitled to make such disclosure, and Jacques Whitford shall provide the Client with copies of any disclosures so made. Jacques Whitford



Last revi VI2/03 RESP01724

shall have no liability to the Client or to any other person or entity for making any such disclosures. Jacques Whitford may rely upon the advice of counsel and follow such counsel's advice in determining whether or not to make any such disclosure.

14. Independent Contractor Status

Jacques Whitford is an independent contractor and shall not be regarded as a partner, employee or agent of the Client for any purpose.

15. Unexpected Contingencies

- If (i) Jacques Whitford is unable to commence or complete the Services within the time set forth in this Agreement because of any Unexpected Contingency (as defined in subsection (b) below, or (ii) Jacques Whitford's performance of any covenant, agreement, condition or term of the Agreement is prevented, delayed, made impossible or otherwise interfered with by an Unexpected Contingency, then, at Jacques Whitford's option, Jacques Whitford shall either (x) terminate the Agreement and be paid by the Client as provided in section 17 below, (y) renegotiate the Terms and Conditions set forth in the Agreement on a basis satisfactory to Jacques Whitford, or (z) suspend performance during the continuance of any Unexpected Contingency and for a reasonable time thereafter and extend the time for its performance of the Services. Jacques Whitford shall not be liable under any circumstances to the Client for any failure of Jacques Whitford to perform the Services to the extent that such failure is caused in whole or in part by any Unexpected Contingency.
- b) For purposes of this Agreement, an "Unexpected Contingency" shall mean (i) any consequence arising out of inaccurate information, advice, or instructions provided by the Client or any third party, (ii) strikes, walkouts, riots, unavoidable accidents, inclement weather, acts of God or the public enemy or unavailability of transportation, (iii) any lawful order issued by the United States government or any other federal, state or local government authority, (iv) any unforeseen or unexpected contingency, the nonoccurrence of which was expressly or impliedly assumed in the Agreement, or (v) any other cause beyond Jacques Whitford's reasonable control.

16. Failure to Pay

If payment of invoices by the Client is not made as required in this Agreement, Jacques Whitford may, at any time and at its option, suspend further work entirely or suspend further work until the Client restores payment to a current basis and, if Jacques Whitford desires, provides advance payments for further Services. In the event Jacques Whitford engages counsel to collect overdue payments, the Client will reimburse Jacques Whitford for all reasonable attorney's fees, court costs and other costs related to collection of overdue payments.

17. Payment on Early Termination of Agreement

If Jacques Whitford or the Client terminates this Agreement prior to the performance in full of Jacques Whitford's Services, the Client shall remain fully liable for, and shall promptly pay Jacques Whitford for, all Services and expenses to the date of termination.

18. Litigation

It is understood that unless expressly implied by the Services outlined in this Agreement that the Services do not include professional services provided by Jacques Whitford for any legal action or suit. Fees for these services will be standard rates time two (2) for court preparation/ deposition, preparation/pretrial,

conferences/in-court, non-testimony time. Fees for in-court testimony will be three (3) times the standard hourly fees.

19. Performance Time Period

The dates of performance shall be interpreted as a material consideration in this Agreement; however, in no event shall dates be constructed as falling within the meaning of "time is of the essence".

20. Indemnity for Toxic and Hazardous Materials

Jacques Whitford has neither created nor contributed to the creation of any hazardous, radioactive, toxic, pollutant, or otherwise dangerous substance or condition, or asbestos, at the site, and our compensation hereunder is in no way commensurate with the potential risk of injury or loss that may be caused by exposures to such substances or conditions. Further, in seeking our consulting services, you acknowledge that we may not have professional liability or other liability insurance, and may not be able to obtain such insurance at reasonable cost, for claims involving the presence or potential presence of pollutants and asbestos. Consequently, you are requesting us to undertake potentially uninsurable obligations for your benefit. Therefore, to the full extent permitted by law, you agree to indemnify, defend and hold harmless Jacques Whitford and its subcontractors, consultants, agents, officers, directors and employees from and against all claims, damages, losses and expenses, whether direct, indirect, economic, or consequential, including but not limited to fees and charges of attorneys and court and arbitration costs, arising out of, related to, or based upon; a release of pollutants; or bodily injury (including death), property damage or other economic loss, caused by release, removal, remedial action or investigation of pollutants; or removal or investigation of, or remedial action taken because of the release or suspected release of pollutants; or the assessment of fines or penalties related to pollutants; or in any way related to asbestos.

21. General Indemnification

Each party agrees to indemnify the other party, its present and future officers, directors, owners, agents, employees, successors and assigns (an "Indemnitee") from any and all liability, loss or damage which an Indemnitee is legally obligated to pay, including, without limitation, liability, loss or damage arising from bodily injury, illness, death, property damage or any other source and reasonable attorneys' fees and investigative and discovery costs, to the extent that it is caused by or arises out of the negligence or willful misconduct of the indemnifying party or a breach of this Agreement by the indemnifying party.

22. Miscellaneous

- The headings in this Agreement are for convenience and shall not affect the construction hereof.
- b) This Agreement shall be governed by and interpreted in accordance with the laws of the State of Maine.
- c) This Agreement shall constitute the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements relating to the subject matter hereof and may not be amended except in a writing signed by both parties. The terms of this Agreement shall not be altered or added to by any subsequent terms and conditions proposed by the Client without express written agreement to that effect from Jacques Whitford.
- d) All terms and provisions shall be binding upon and ensure to the benefit of and be enforceable by the parties and their successors and assigns, provided that no party may assign its rights or obligations hereunder without the prior written consent of the other party.







January 17, 2003

Drummond & Drummond, LLP Mr. Paul E. Peck One Monument Way Portland, Maine 04101

RE: 7 Depot Street - South Windham, Maine

Mr. Peck:

Environ Services, Inc. appreciates this opportunity to provide a quotation for the transportation and disposal of waste materials, labor, and testing services for your project located in South Windham, Maine.

Based upon your inventory and subsequent site visits, we are pleased to offer you the following pricing. Please note that all cylinders must have working valves, be DOT shippable, and have known contents or additional charges will apply.

Only assessable items will be disposed of. Any waste materials outside of the building will be managed when weather conditions improve.

As always, please call with any questions.

Respectfully,

Ron A. Smalley Til

January 17, 2003 7 Depot Street - South Windham, Maine

Cost Breakdown

Line Item	Quantity	Description		Price
1	1 x 55 gallon drum	Corrosive Wastes for Incineration	\$	455.00
2	500 pounds	Universal Waste - Fluorescent Bulbs	\$	450.00
3	1 x 30 gallon drum	Non-Hazardous Organic Solids for Landfill	\$	150.00
4	1 x flex bin (CY)	Non-Hazardous Organic Solids for Landfill	\$	400.00
5	6 x 55 gallon drums	Empty Drums	\$	200.00
6	1 x 55 gallon drum	Liquid Fuels for Blending	\$	92.00
7	1 x 5 gallon pail	Lab Packs for Aqueous Treatment	\$	80.08
8	1 x 5 gallon pail	NiCd Battery for Reclamation	\$	75.00
9	2 x pallets	Lead Acid Batteries for Reclamation	\$	480.00
10	1 x 5 gallon pail	Lab Packs for Incineration	\$	100,00
11	1 x 16 gallon drum	Lab Packs for Incineration	\$	180,00
12	1 x 5 gallon pail	Mercury for Incineration	\$	100,00
13	3 x 55 gallon drums	PCB's for Secure Chemical Landfill	S	1,025.00
14	1 x large	Cylinder of Propane for Recycling	\$	200,00
15	1 x medium	Cylinder of Propane for Recycling	\$	175.00
16	4 x large	Cylinder of Category 4 Compressed Gas	\$	650.00
17	1 x medium	Cylinder of Category 4 Compressed Gas	\$	165.00
18	1 x large	Cylinder of Category 6 Compressed Gas	\$	650.00
19	1 x medium	Cylinder of Category 6 Compressed Gas	\$	450.00
20	1 x 16 gallon drum	Lab Pack for Landfill	\$	80.00
21	1 x 55 gallon drum	Asbestos for Secure Landfill	\$	225,00
22	3 x flex bin (CY)	Non-Processable Paint Related Material	\$	2,300.00
	2 men x 1 day	Labor (1 Chemist and 1 Laborer)	\$	1,300.00
24	Approx. 6	Materials (55 gallon drums and flex-bins)	\$	800.00
25	1 Trip	Transportation	\$	600.00
		Estimated Total:	\$	11,382,00

- Pricing is subject to Local, State, and Federal taxes and/or fees where applicable.
- Hazardous waste transporter fees and/or taxes are not included.

2/27/2003

ENVIRON SERVICES, INC.

P.O. BOX 8101 PORTLAND, ME 04104

Phone: 207-854-8228 Fax: 207-854-9229

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Invoice #

21731

Bill To
Lumas, Inc.
Scott Lalumiere
P.O. Box 4787

Portland, Maine 04101

P.O. No.	Terms	Project
	Net 15	

Quantity	Description	Rate	Amount
1	Corrosive Waste for Incineration - Line Item # 1	455.00	455,00
1	Refractory Dust Disposal - Line Item # 3 - Non Hazardous	150.00	150.00
	Organic Solids for Landfill (1 - 30 gallon drum)		
1	Refractory Dust Disposal - Line Item # 4 - Non Hazardous	400.00	400.00
	Organic Solids for Landfill (1 cubic yard)		
5	Empty Drum Disposal - Line Item # 5 (5 - 55 gallon drums)	34.00	170,00
1	Non-Hazardous Waste Oil Disposal - Line Item # 6 (1 - 55 gallon	92.00	92,00
~	drum)		
1	Waste Battery for Aqueous Treatment - Line Item # 7 (1 - 5	80.00	80.00
	gallon pail)		
1	NiCd Battery Recycling - Line Item #8 (1 - 5 gallon pail)	75,00	75.00
	Lead Acid Battery Recycling - Line Item #9 (518 lbs)	480.00	480.00
1	Lab Pack for Incineration - Line Item # 10 (1 - 5 gallon pail)	100.00	100.00
1	Lab Pack - Aerosol Waste for Incineration - Line Item # 11 (1 -	180.00	180.00
	16 gallon drum)		
1	Pesticide Waste Disposal - Line Item # 12 (1 - 5 gallon pail)	100.00	100.00
	Compressed Propane Cylinder Disposal - Line Item # 14 (1 large)	200.00	200.00
	Compressed Propane Cylinder Disposal - Line Item # 15 (2	175.00	350.00
	medium)	v.	
1	Compressed Oxygen Cylinder Disposal - Line Item # 16 (1 large)	162.50	162.50
	Sodium Hydroxide Disposal - New Line Item (1 - 30 gallon	385.00	385.00
	drum)		
1.	Non-Processable Paint Related Material for Incineration - Line	2,300.00	2,300.00
	Item # 22 (3 cubic yard flex bins)		
1	Lab Pack Labor (1 Chemist and 1 Laborer) - Line Item # 23	1,300,00	1,300.00

Total

P.O. BOX 8101 PORTLAND, ME 04104

Phone: 207-854-8228 Fax: 207-854-9229

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Date Invoice # 2/27/2003 21731

Invoice

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Bill To		1.1	中事	
Lumas, Inc.	1.	·.	 1	
Scott Lalumiere			₹	
P.O. Box 4787				1
Portland, Maine 04101				į.

	P.O. No.	Terms	Project
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	·		Net 13		
Quantity	Description	 	R	ate	Amount
1	2 RCRA Drums (55 gallons) and 4 flex bi Item # 24	ns (1 cubic yard) -	Line	800.00	800.00
	Hazardous Waste Transportation - Milk R Maine Hazardous Waste Transporter Fees			600.00	600.00 52.46
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			es es composito de la composit		

Total

\$8,431.96

March 6, 2003

Drummond & Drummond, LLP Mr. Paul E. Peck One Monument Way Portland, Maine 04101

RE: Hazardous Waste Remediation Results and Invoice

Mr. Peck:

On February 27th, Environ Services, Inc. completed the first phase of the hazardous waste remediation project for the former Windham Iron Works Facility. The inventory that you provided for Environ differed slightly from the actual findings.

Environ Quote Dated January 17, 2003

Billed line items are: 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 22, 23, 24, and 25.

Line items not billed are:

Line Items 2 and 13 - 500 lbs of Fluorescent Bulbs and 3 (55) gallon drums of PCB's for Secure Chemical Landfill. The PCB's are found within the ballasts that are part of the fluorescent fixtures. Both of these items can be handled at the time of renovation and/or demolition.

Line Items 17, 18, and 19 relate to compressed cylinders. The cylinders were not identified correctly and had to be re-evaluated at the time of the project. Line item 16 referenced 4 large (category 4) cylinders and we only found one. The remaining three cylinders are being inspected and possibly tested to determine the actual use prior to disposal.

Line Item 20: We were able to consolidate this into an ongoing Lab Pack from this project.

Line Item 21 pertains to asbestos containing waste. The clean up of this material has to be performed by a licensed asbestos worker. As the schedule permits, Environ will remove this material within the next two weeks.

In addition, we found two drums of unknown waste material. Sampling was performed and we are currently waiting for the results. At such time, Environ will then return to the site and remove the drums in question.

As always, please call with any questions.

Respectfully,

Ron A. Smalley Jr.

Invoice

ENVIRON SERVICES, INC.

P.O. BOX 8101 PORTLAND, ME 04104

Phone: 207-854-8228 Fax: 207-854-9229

*	-

Date Invoice # 4/28/2003 21810

Bill To

Lumas, Inc.

Scott Lalumiere

P.O. Box 4787

Portland, Maine 04101

	P.O. No.	Terms	Project
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		-	
Quantity	Description	Rate	Amount
1	Non-Processable Paint Related Material for Incineration	350.00	350,06
1	· · · · · · · · · · · · · · · · · · ·	92.00	92.00
3		200.00	600.0
1	Hazardous Waste Transportation	390.00	390.0
			- AND
		Total	\$1 430 A

Total

\$1,432.00

Invoice

P.O. BOX 8101

PORTLAND, MB 04104

Phone: 207-854-8228 Fax: 207-854-9229

Date	Invoice #
8/14/2003	21926

Bill To		
Lumas, Inc.	- AND PROPERTY OF THE PARTY OF	* 155 T
Scott Lalumiere		
P.O. Box 4787		
Portland, Maine 04101		
Portland, Maine 04101		

P.O. No.	Terms	Project
	Net 15	

Quantity	Description	Rate	Amount
1.	Mob. & Demob. of Excavator	650.00	650.00
5	Excavation with Operator	1,000.00	5,000.00
	Disposal of Waste Debris	70.00	1,803.20
	Transportation of Waste Debris - Live Floor	425.00	425.00
	Disposal of Waste Debris	70.00	1,323.00
1	Transportation of Waste Debris - Live Floor	425.00	425.00
-			

and the second s			
		Total	\$9,626.20

Invoice

P.O. BOX 8101

PORTLAND, ME 04104

Phone: 207-854-8228 Fax: 207-854-9229

Date	Invoice #
8/15/2003	21958

Bill To	
Lumas, Inc.	
Scott Lalumiere	
P.O. Box 4787	
Portland, Maine 04101	•

and the second	P.O. No.	Terms	Project
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Quantity	Description	Rate	Amount
1	Non-Processable Paint Related Material for Incineration	125.00	125.00
2	Non-Hazardous Waste Oil Disposal - (2) 55 gallon drums	92.00	184.00
3	Non-Hazardous Waste Oil Disposal - (3) 85 gallon drum	120.00	360.00
2	Empty Drum Disposal	34.00	68.00
	Hazardous Waste Transportation - Milk Run	250.00	250.00
25	Maine Hazardous Waste Transporter Fees/Taxes	0,015	0.38
		Time and the state of the state	
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		Total	\$987.38

Invoice

P.O. BOX 8101

PORTLAND, ME 04104 Phone: 207-854-8228

Fax: 207-854-9229

Date	Invoice #
9/2/2003	21965

Bill To		
Lumas, Inc.	 	
Scott Lalumiere		
P.O. Box 4787		
Portland, Maine 04101		

P.O. No.	Terms	Project
	Net 15	

Quantity	Description		Rate .	Amount
1	,	or	750.00	750.00
25	Sampling) Testing Kits		10.00	250.00
25			20.00	500.00
	•	1		
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electrical designation of the second				
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1			2	
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				A site
			Total	\$1,500.00

STATE OF BROWE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Division of Waste Management 235 Promenade Street, Providence, RI 02908-5767

HEPEU

(401) 277-2797 Form Approved, OMB No. 2050-0039 Expired 9/30/99 (Form designed for use on elite (12-pitch) typewriter.) 1. Generator's US EPA ID No. UNIFORM HAZARDOUS 2. Page 1 Information in the shaded areas is MEPODO 0 1 5 6 3 4 | Document No not required by Federal law, but COPY WASTE MANIFEST may be required by state law. Generator's Name and Mailing Address A. State Manifest Document Number: P.O. BOX 4707 တ PORTLAND ME 04101 B. Generator/Site Address Generator Mails 4. Generator's Phone (20)7 US EPA ID Number ZOBEOG STREET 5. Transporter 1 Company Name 21ST CENTURY ENV MGT INC. OF RI 10980906986 WITHOUGH PIC CONTRACT 7. Transporter 2 Company Name US EPA ID Number C. State Transporter ID/License Plate Orradia fi 9. Designated Facility Name and Site Address D. Transporter's Phone 401 761-6330 US EPA ID Number E State Transporter ID/License Plate 👊 🛼 힉 MEETHLAND ENVIRONMENTAL, INC F Transporter's Phone 275 ALLENS AVE Destination G. Facility Mailing:Address W 1 0 0 4 0 6 9 8 3 5 2 PROVIDENCE RI 02905 H Facility's Phone 12.Containers 13. 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number, Total Unit Waste No. Wt/Vol WEIN DUTTACRA HAZ LIGUID. WOT DUT REGULATED. State BY NOME (OIL). (M/ME) HIGH DOTT/ROBA HAZ ROBA EIFTY CRUMS AND CONTAINERS NUNE .NOT DOT BEGLATED 00-00060 d, œ COPIES J. Additional Descriptions for Materials Listed Above K. Handling Codes for Wastes Listed Above 3882340 QX557(5) 3062342 3x/85/1x55/L) Interim / Final Final MUST . SO4 ENERGERCY PROME (101)781-6840 BE 15. Special Handling Instructions and Additional Information 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable $\overline{\mathbf{w}}$ international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment: or, if I am a small quantity, I have made good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Date Year Printed/Typed Name Month Day 1.53 17. Transporter 1 Acknowledgement of Receipt of Materials Date Printed/Typed Name Month Day Year Signature F 6. 18. Transporter 2 Acknowledgement or Receipt of Materials Date Printed/Typed Name Signature Month Day Year 19. Discrepancy Indication Space 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Date Printed/Typed Name Signature

STATE OF BROWN ISLAM

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



Division of Waste Management 235 Promenade Street, Providence, RI 02908-5767 HEPEU

(401) 277-2797 Form Approved, OMB No. 2050-0039 Expired 9/30/99 (Form designed for use on elite (†2-pitch) typewriter.) 1. Generator's US EPA ID No. 2. Page 1 Information in the shaded areas is UNIFORM HAZARDOUS MEP0000.15634 Document No not required by Federal law, but COPY WASTE MANIFEST may be required by state law. 3. Generator's Name and Mailing Address LIMPAN A. State Manifest Document Number P.O. BUX 4787 PORTLAND ME 04101 Generator Mails B. Generator/Site Address 4. Generator's Phone (207 US EPA ID Number 7 DEPUT STREET 5. Transporter 1 Company Name WINDHAM PE DAGES I 21ST CENTURY ENV MIT INC. OF RI 10980906986 7. Transporter 2 Company Name US EPA ID Number C. State Transporter ID/License Plate 是是一个方式在第一个数据 D: Transporter's Phone (* 40) 781-6340 9. Designated Facility Name and Site Address US EPA ID Number E. State Transporter ID/License Plate; ಠ MORTHLAND ENVIRONMENTAL. IN E. Transporter's Phone Destination 275 ALLEMS AVE G. Facility Mailing Address #·ID040098352 PROVIDENCE RT 02905 H-Facility's Phone 12.Containers 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number, Total Unit Waste No. Quantity Wt/Vali AMENI DOT/ACRA HAZ LIGALD, WIT DOT REGILATED. State MOME (OIL), (MONE) BHOM DOT/ROBA HAZ ROBA EMPTY DRUMS AND CONTAINERS MONE . NOT DOT REGULATED d. 00 O QP. J. Additional Descriptions for Materials Listed Above K. Handling Codes for Wastes Listed Above 3065345 3x82 [x22/2] - P 3065340 3x22.(2) Interim: Final Interim 🖟 Final MUST 501 ENERGENCY PHONE (401)781 6340 15. Special Handling Instructions and Additional Information m 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable $\overline{\omega}$ international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment: or, if I am a small quantity, I have made good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Date Printed/Typed Name Month Day Year. 17. Transporter 1 Acknowledgement of Receipt of Materials Date Printed/Typed Name Month Day Year Signature 18. Transporter 2 Acknowledgement or Receipt of Materials Month Day Printed/Typed Name Signature Year 19. Discrepancy Indication Space 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Printed/Typed Name Signature

STATE OF BRODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Division of Waste Management 235 Promenade Street, Providence, RI 02908-5767

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(401) 277-2797 Form Approved, OMB No. 2050-0039 Expired 9/30/99 (Form designed for use on elite (12-pitch) typewriter.) 1. Generator's US EPA ID No. UNIFORM HAZARDOUS Manifest 2. Page Document 3.2.5 not required by Federal law, but COPY MEPOOO015634 of T **WASTE MANIFEST** may be required by state law Generator's Name and Mailing Address LAMAN. A. State Manifest Document Number P.O. BOX 4787 Ö PORTLAND ME 04101 Generator B. Generator/Site Address Generator's Phone (207 US EPA ID Number 7 DEPOY STREET 5. Transporter 1 Company Name 10980906986 21ST CENTURY ENV MST INC. OF RI WINDHAM PE 04062 7. Transporter 2 Company Name US EPA ID Number C. State Transporter ID/License Plate Mails 10 t/3 ti.6 D. Transporter's Prione 4(1) 781-634(9. Designated Facility Name and Site Address US EPA ID Number E. State Transporter ID/License Plate ಠ MORTHLAND ENVIRONMENTAL. DEC F. Transporter's Phone 🕒 🖟 🧢 G. Facility Mailing Address Destination 275 ALLENS AVE PROVIDENCE RT 02905 N 1 D D 4 O O 9 B 3 5 2 H-Facility's Phone 12.Containers 13. 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number Total Unit Waste No. Quantity Mt/VoaMON DOT/RORA HAZ LIGUID, NOT BOT REGULATED. NONE (OIL), (MOME) HIM DOT/RURA HAZ RURA EMPTY DADIMS AND CONTAINERS NOME CHALLIBER TOO TON, d, COP 3062342 3x 65 1x 55 74) 3963340 2x 55 7 52 Ji Additional Descriptions for Materials Listed Above ĒS K. Handling Codes for Wastes Listed Above Interim Final Interim 📳 MUST ,30% EMERGENCY PHONE (401)701-6340 15. Special Handling Instructions and Additional Information Ш 듀 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. BLE If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment: or, if I am a small quantity, I have made good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford Date Printed/Typed Name Month Day Year 17. Transporter 1 Acknowledgement of Receipt of Materials Date Printed/Typed Name Signature Month Day Year 18. Transporter 2 Acknowledgement or Receipt of Materials Year Printed/Typed Name Signature Month Day 19. Discrepancy Indication Space 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Signature

STATE OF RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Division of Waste Management 13924 235 Promenade Street, Providence, RI 02908-5767 (401) 277-2797 Form Approved, OMB No. 2050-0039 Expired 9/30/99 _(Form designed for use on elite (12-pitch) typewriter.). Generator's US ERA ID No. Manifest 2. Page 1 UNIFORM HAZARDOUS Information in the shaded areas is not required by Federal law, hist COPY 6: **WASTE MANIFEST** may be required by state law. Generator's Name and Mailing Address A. State Manifest Document Number P.O. BUX 4787 FOXILAND ME 04101 Generator Generator's Phone (Transporter 1 Company Name 21ST CENTURY EW/ PEST INC. OF RI US EPA ID Number R T D 9 B O 9 O 6 9 B 6 SHART PLANTAGE 7. Transporter 2 Company Name US EPA ID Number C. State Transporter ID/License Plate Mails D. Transporter's Phone 401 / 01-6 J40 Designated Facility Name and Site Address US EPA ID Number MORTHLAND ENVIRONMENTAL, INC E. State Transporter ID/License Plate Committee Gis ಠ F_Transporter's Phone 74 (1995) 275 ALLEMS AVE Destination - G. Facility Malling Address 👙 📳 PROVIDENCE RI 02505 **W I D O A D O O O B 3 5 2** H. Facility's Phone 12.Containers Waste No 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number, Total Unit Quantity Wt/Vol Waste Aust Related material, 3, UNIDES, PEZZ Ь. C. ď. O OPIES J. Additional Descriptions for Materials Listed Above 😁 K. Handling Codes for Wastes Listed Above 。2002735(1)/663)和决定。 Interim: | Final ⊪Interim: J. Final MUST B 15. Special Handling Instructions and Additional Information LEGIB 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. It I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; or, if I am a small quantity, I have made good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Date Printed/Typed Name Signature Month Day 1-64165 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Month Day 18. Transporter 2 Acknowledgement or Receipt of Materials Date Printed/Typed Name Month Day Year Signature 19. Discrepancy Indication Space

EPA Form 8700-22 (3-84)

Printed/Typed Name

Signature

Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

STATE OF RHOUE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Division of Waste Management

13904

235 Promenade Street, Providence, RI 02908-5767 Form Approved. OMB No. 2050-0039 Expired 9/30/99 (401) 277-2797 (Form designed for use on elite (12-pitch) typewriter.). 1. Generator's US ERA ID No. UNIFORM HAZARDOUS Manifest Information in the shaded areas is Document No COPY not required by Federal law, but WASTE MANIFEST may be required by state law Generator's Name and Mailing Address A. State Manifest Document Number P.O. BUX 47337 Ö PORTLAND ME 04101 Generator Generator's Phone Transporter 1 Company Name 2131 CENTURY ENVIREST INC. OF RI US EPA ID Number WIMPLEN W. DADES 80905986 US EPA ID Number Transporter 2 Company Name C: State Transporter ID/License Plate Mails D. Transporter's Phone 401 401-6:348 Designated Facility Name and Site Address US EPA ID Number E State Transporter ID/License Plate 😁 🧐 힉 PRIFTHEAD ENTRY WENTAL, INC F. Transporter's Phone 275 ALEMS AVE **Destination State** G. Facility Mailing Address PRIVILENCE RT 02905 W 10040098352 H. Facility's Phone. 12.Containers 13. 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number, Unit Total Waste No Quantity Mt∕Vo Waste Aunt Related material, 3, UN 1263, PEZZ b. C. d. OPIES J. Additional Descriptions for Materials Listed Above K. Handling Codes for Wastes Listed Above a3563539(17/60i)H62 Interim . Final MUST EMERGENCY PHONE - (401,1781-6740 8 15. Special Handling Instructions and Additional Information 16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; or, if I am a small quantity, I have made good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Date Printed/Typed Name Signature Month Day 1 FURL S 17. Transporter 1 Acknowledgement of Receipt of Materials Date Printed/Typed Name Month Day 18. Transporter 2 Acknowledgement or Receipt of Materials Year Printed/Typed Name Signature Month Day 19. Discrepancy Indication Space 20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Date

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Division of Waste Management 235 Promenade Street, Providence, RI 02908-5767

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THIS IS TO CERTIFY that the above listing is an accurate description of the content of this drum and that it contains no radioactive, explosive or shock sensitive materials.

No. = Reference Number / EPA = Waste Code / DOT = UN-NA No. or Haz. Class / X = Multiple Containers / Size = Container Size Phase = Solid or Liquid / Comp. = Compatibility Group Code / Track = Drum Identification Number / DC = Disposal Code

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Questor Renee Lewis 50 Monument Square, 2nd Floor Portland, Maine 04101

RE: Select Demolition and Clean-up of Keddy Mill - South Windham, Maine

Renee:

Environ Services, Inc. is pleased to provide the following proposal to perform select demolition and clean up of scrap metal and waste debris at the above referenced project.

Environ will perform select demolition which includes:

- 1. Remove all scrap metals from the facility. Freight costs will be borne by Environ.
- 2. Recycle all scrap metal that has been removed.
- 3. Torch cut over-size scrap metal pieces that are too heavy or too large to load onto Environ's trucks.
- 4. Load only clean scrap metals free of non-metallic contaminants, special waste, or hazardous waste.

Items 1 thru 4

Environ will remove all scrap metals located at the foundry on a no charge, no payment basis.

Environ will organize, sort, and load all steel with Environ's 55,000 lb. excavator. We anticipate this to take approximately seven days. Environ will perform test pitting during this time.

Excavator with Operator:

Mob. & Demob. of Excavator:

\$1,000.00 per day \$ 650.00 flat fee

Mob. & Demob. of Excavator: \$ 650

Any and all debris that cannot be recycled will be properly disposed of at a licensed facility designed to take such waste.

Transportation of Waste Debris:

\$425.00 per trip (100 cy trailers)

Disposal of Waste Debris:

\$ 70.00 per ton

We would like to thank you for the opportunity to provide demolition services. Please call if you have any further questions.

Respectfully,

Ron A. Smalley



TO:	FROM:
Renee Lewis	Ron A. Smalley Jr. (ron@environservices.com)
FAX NUMBER:	DATE: 7-23-03
RE:	TOTAL NO. OF FAGRS INCLUDING COVER:

Renee:

We are ready for Monday, July 28th.

Is everything OK on your end?

Please call,

Ron



Questor Renee Lewis 50 Monument Square, 2nd Floor Portland, Maine 04101

RE: Select Demolition and Clean-up of Keddy Mill - South Windham, Maine

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\$425.00 per trip (100 cy trailers)

Disposal of Waste Debris:

\$ 70.00 per ton

We would like to thank you for the opportunity to provide demolition services. Please call if you have any further questions.

Respectfully,

Ron A. Smalley



Jacques Whitford Company, Inc.

75 Pearl Street, Suite 410, Portland, Maine, U.S.A. 04101 Tel 207 761 7790 Fax 207 761 7631

Consulting Engineers
Environmental Scientists
Risk Consultants

World Wide Web: www.jacqueswhitford.com E-mail: info@jacqueswhitford.com

Maine • New Hampshire • Massachusetts • Connecticut • Florida • Rhode Island • Pennsylvania • New York • Trinidad • Russia • Argentina • Brunei
Nova Scotia • New Brunswick • Prince Edward Island • Newfoundland & Labrador • Quebec • Ontario • Saskatchewan • Alberta • British Columbia • Northwest Territories

July 14, 2003

Ms. Renee J. Lewis 50 Monument Square, 2nd Floor Portland, Maine 04101

RE: Proposal for Supplemental Site Investigation 7 Depot Street, Windham, Maine Jacques Whitford Project No. mep03102

Dear Ms. Lewis:

Jacques Whitford Company, Inc. (Jacques Whitford) is pleased to provide this supplemental scope of work and budget for continued environmental consulting services associated with the 7 Depot Street facility in Windham, Maine. We are preparing this proposal as follow-up to our meeting with Nick Hodgkins of the Maine Department of Environmental Protection, and a visit to the site on June 27, 2003.

The primary objective of the additional work is to investigate sources of potential contamination identified in previous reports regarding the subject property, and during the site walk by Jacques Whitford on June 27. The data collected will be used to identify potential areas requiring clean-up and appropriate site clean-up goals, if required. Goals would be identified based on communication with Nick Hodgkins who manages the MDEP Voluntary Response Clean-Up Program (VRAP). It is also possible that additional subsurface investigation may be required depending on the outcome of the phase of work prescribed herein.

In preparing this supplemental work scope, Jacques Whitford reviewed:

- 1. Environmental Site Assessment, Phase I & II, Former Steel Mill Property, Route 202 and Depot Street, Windham, Maine, by S.W. Cole Engineering, Inc., November 17, 1997.
- 2. Phase I Environmental Site Assessment, Keddy Manufacturing Company, South Windham, Maine, by Acadia Environmental Technology, March 2, 1994.
- 3. Phase I Limited Environmental Assessment, Lot 7 of Map 38, Windham Township, South Windham, Cumberland County, Maine, by Consla Geotechnical Engineering, March 18, 1993.



VIL RESP01746

Scope of Work

1. Using a subcontracted excavator, monitor completion of 1 to 2 days of test pits (up to 12 locations). The rationale for each location is provided in Table 1 below; approximate exploration locations are shown on the attached figure.

Test	Rationale
Pit ID	<u> </u>
TP101	Adjacent to former wastewater holding tank
TP102	In area of stressed/sparse vegetation during site walk on June 27
TP103	In area of stressed/sparse vegetation during site walk on June 27
TP104	Former No. 6 oil spill area
TP105	Former No. 6 oil spill area
TP106	Former 250K gallon fuel oil tank (likely AST)
TP107	Downslope from former Depot Energy Company
TP108	Downslope from former Depot Energy Company
TP109	Adjacent to former 15K gallon fuel oil tank (AST)
TP110	Adjacent to former 10K gallon fuel oil tank (AST)
TP111	Former outside drum storage area
TP112	River side of former garage
HA1	Adjacent to former fuel oil tank
HA2	Adjacent to outside transformer pad
HA3	Adjacent to former floor drain in building basement
HA4	Adjacent to former floor drain in building basement

Jacques Whitford will provide a field geologist to monitor the excavations, document subsurface conditions and collect samples for field screening and lab testing.

- 2. Screen soil samples at 2-foot depth intervals for relative concentrations of volatile organic compounds (VOCs) using a photoionization detector (PID).
- 3. Complete two (2) hand auger samples, one in the vicinity of a former above-ground fuel tank, and one adjacent to an outside transformer pad where a stain was noted on the concrete pad.
- 4. Complete two (2) hand auger samples in vicinity of a floor drain in basement of building. Concrete coring may be necessary to collect samples from below the slab.
- 5. Submit up to six (6) soil samples for laboratory testing of diesel range organics (DRO)/fuel identification, VOCs, metals and PCBs.
- 6. Prepare a letter report of our findings including a plan of exploration locations, field screening and test results, and our conclusions regarding potential sources of contamination and implications for future clean-up, if needed.





7. Initiate correspondence with MDEP for site review under the VRAP program.

Schedule and Budget

We understand you seek completion of the work detailed herein as soon as feasible, and we are prepared to begin work as soon as authorized. We have been in contact with Ron Smalley of Environ Services, Inc. who you have recommended for excavation services and will schedule the work in concert with ongoing site clean-up activity to reduce mobilization fees. Our budget for the recommended scope of work is broken down as follows:

Jacques	Whitford Labor \$4,600)
Jacques	Whitford Expenses 500)
Subcont	ract Laboratory 2,500)

Budget estimate \$7,600

We have assumed that you will contract directly with the test pit excavator; Environ Services estimates a rate of \$80/hour for the excavator. Please understand we have provided limited budget for initiating communication with MDEP regarding the VRAP process (about 6 hours). Additional meetings/oversight may be required at added cost. Our budget does not include the VRAP application fee or other related charges. Also, depending on the findings of the proposed limited investigation, additional exploration and chemical testing may be warranted.

Jacques Whitford will invoice on a time and expenses basis with a not-to-exceed amount of \$7,600 without your authorization. If you are in agreement with the proposed work, budget and the attached General Contract Terms and Conditions, please sign below and return one copy to us. Thank you for considering Jacques Whitford for this work.

Sincerely,

Jacques Whitford Company, Inc.

D. Todd Coffin, M.S., C.G. Senior Environmental Specialist

Approved by:

Renee J. Lewis

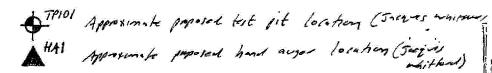
Date

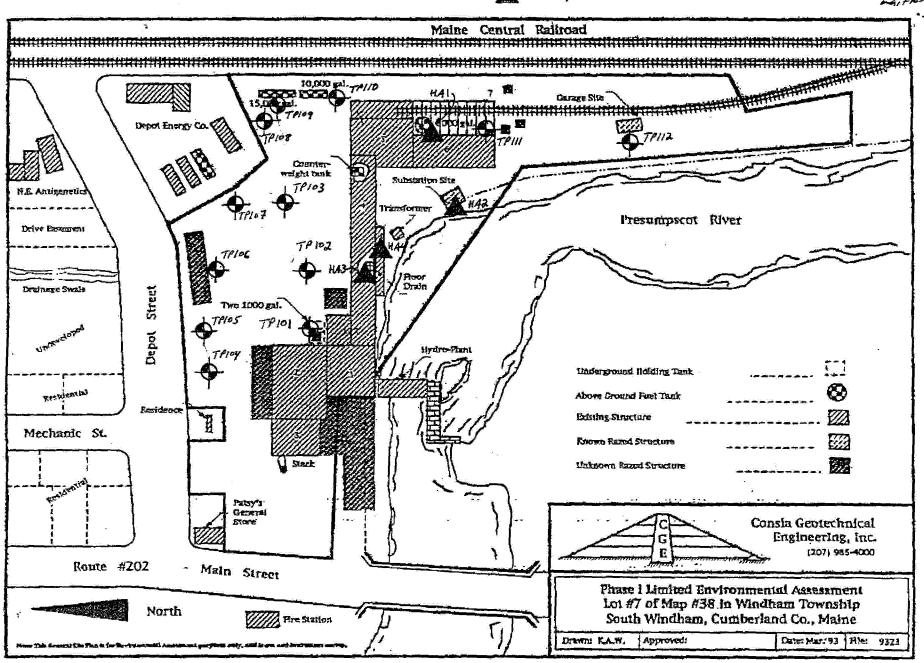
Encosure: Jacques Whitford Standard Terms and Conditions

mep03102/prop 7 14 03









PO Box 1237 15 Shaker Rd. Gray, ME 04039

Traffic and Civil Engineering Services

207-657-6910 FAX: 207-657-6912 E-Mail:mailbox@gorrlllpalmer.com

August 15, 2007

Mr. Brooks More, AICP Director of Planning Town of Windham 8 School Street Windham, ME 04062

Subject:

Village at Little Falls

Traffic Engineering Peer Review

Dear Brooks,

As requested by your office, Gorrill-Palmer Consulting Engineers Inc. has reviewed the responses provided by Bill Bray, dated August 11, 2007. Our office provided review comments to the Town and applicant on July 5, 2007 and August 3, 2007.

Mr. Bray has provided the crash data for the Depot Road at River Road intersection, which indicates only one crash in the last three years. Based on this information and the previous assessment that the intersection only marginally meets the criteria for consideration of a left turn lane, we would concur that a left turn treatment is not warranted.

Please contact this office with any questions.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.

Peter A. Hedrich, P.E., PTOE Vice President, Transportation

Copy: Lee Allen, Northeast Civil Solutions, Inc.

Steve Etzel, HRC

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Civil Engineers & Land Surveyors

June 12, 2007

Project 064006-02

Lee D. Allen, P.E. Northeast Civil Solutions 153 U.S. Route 1 Scarborough, Maine 04074

RE:

Structural Condition Investigation HRC Village at Little Falls, LLC

South Windham, Maine

Dear Lee:

Oak Engineers, LLC. (Oak) has completed structural condition investigation of the existing power plant and abandoned mill building foundations at the above site in accordance with our agreement dated March 12, 2007. The purpose of this investigation is to assess existing conditions and determine viable options for installing a retaining wall adjacent to the power plant property, which is currently owned and operated by Sappi. We understand that the proposed retaining wall must support the adjacent property without removing any of the existing back fill materials or disturbing the structure.

SCOPE OF INVESTIGATION

The investigation included the following tasks:

- A site visit was conducted on February 8, 2006, and on March 29, 2007, by engineers
 from Oak to visually observe structural conditions of the mill building foundations and
 adjacent Sappi power plant. Mr. Tom Howard of Sappi provided access to the existing
 power plant during the March 2007 visit and provided general information regarding the
 power plant building's construction.
- 2. During the March visit, a dimensional survey of important building components and surrounding grades was conducted by Oak.
- 3. Existing conditions plan and section of the mill building and adjacent property was developed based on the field survey and information provided by Sappi (see Attachment)
- An engineer evaluated existing structural conditions as well as subsurface information provided in a geotechnical report previously provided by Oak (report dated February 27, 2007) with respect to the proposed construction plans by Northeast Civil Solutions, Inc. (NCS).

Lee D. Allen, P.E. Northeast Civil Solutions

5. Recommendations for design and construction of a retaining wall adjacent to the Sappi property and along the river were developed.

EXISTING CONDITIONS

Mill Building

The abandoned mill building is generally constructed of reinforced concrete columns, beams, and exterior walls, with either flat slab or ribbed floor construction. The south basement wall that is parallel to the river consists of 12-inch-thick concrete wall approximately 8 feet in height above the basement level floor slab and supports the exterior brick masonry walls extending three levels above the basement floor. It appears that the basement wall adjacent to the river is supported on concrete piers spaced approximately 25 feet apart.

The basement wall located at the west end of the building consists of approximately 48-inch-thick stone masonry wall extending approximately 8 feet above the elevated basement floor. Above the stone masonry, the wall is constructed of approximately 40-inch-thick brick masonry to the first-floor level. It appears that the upper brick masonry wall was originally above grade since large areas were blocked with concrete masonry units where windows once existed.

Water flows through open brick culverts (possibly penstocks) from the power plant property on the west side of the mill building and beneath the elevated structural floor slab in the basement. The water is directed and channeled through a system of concrete holding tanks and conduits beneath the slab and returns to the river beneath the building foundations on the south wall adjacent to the river.

Minor cracking or deterioration was observed in the south basement wall. The west basement wall appears to be stable at the stone masonry base. However, some buckling, patching, and localized structural failure was noted in the upper brick masonry wall.

The concrete walls, columns, and floors were sounded with sledge hammer in several locations and appeared to be sound.

Power Plant

The adjacent power plant building is constructed of cast-in-place concrete foundations and floor slabs with steel-framed and masonry superstructure. The powerhouse has three separate floor levels with elevations noted in the attached sketch provided by Sappi. The power house is connected to the existing mill building with a stone masonry foundation wall and upper concrete wall. There is a large opening in the stone masonry foundation wall approximately 4 feet wide by 8 feet high which provides access from the mill building to the tailrace area of the power plant.

The building appears to be is good condition and no significant damage was noted during our brief visit.